

THE
ELEMENTS
OF
MODERN GEOGRAPHY

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PREFACE.

THIS book has been written for the use of boys reading in the middle and upper classes of High Schools in India. To meet the requirements of both sets of pupils, it is divided into two parts. Part I. gives a general survey of the world, due attention being paid to the geography of the British Empire. Part II. deals exclusively, and it is hoped adequately, with India and the United Kingdom. It may be noticed that Part I. is complete in itself and is available as a separate book.

An attempt has been made to present the facts in as attractive a form as the nature of the subject will admit; great attention has also been paid to the style of printing. In the case of the larger cities, the population is invariably given, this being about the best way of impressing upon the learner their relative importance (*see* also, pp. 116, 138, and 164). The tables of distribution of the vegetable and mineral productions of the continents need not be taken up till the student reaches the third class, but the shorter summaries preceding them should be read at a lower stage. Pages 3—5 may also, at the discretion of the teacher, be omitted in the case of junior students. It has not been thought fit to dispose of the subject of *latitude* and *longitude* (as is often done) with formal definitions without any explanation whatsoever (*see* pp. 118—9). In Chapter XII., I have ventured to point out whence the United Kingdom gets her supplies; the table is somewhat long, but it is hoped that it will not be without interest to the learner. I need

hardly add that the aim has been to bring all information given, up to date.

I have to record my great obligations to *The Statesman's YearBook*, 1902, and *Review of the Trade of India in 1901-2*, published by the Government of India.

I shall be grateful to any one who will be good enough to point out errors.

CALCUTTA :

The 9th November, 1902,

J. C. M.

The Student is requested to make the following addition and corrections before using the book.

- Page 19, para. 2, for *Dutchy*, read *Duchy*.
" 26, " 1, " *Sotland*, " *Scotland*.
" 31, " *Bercelona*, " *Barcelona*.
" 97, " 3, " *indegenous*, " *indigenous*.
" 118, " 1, 1st line, for *greaty*, read *greatly*.
" 128, insert, *Jute.....Bengal (9)*.
" 132, 6th line from the top, for 32,000, read 3,200.

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CHAPTER I.

SECTION I.

THE EARTH—ITS GENERAL DESCRIPTION,
SHAPE, SIZE, AND MOTIONS

Definition of Geography. Geography is a description of the Earth, and more particularly of its surface.

A GENERAL DESCRIPTION OF THE EARTH.

The Earth is a **round*** body of **vast size**. Its diameter is about 8,000 miles, and the area of its outer surface measures nearly 200 millions of square miles. We inhabit and cultivate the **outer** surface of the Earth. The whole of its outer surface, however, is not available for our residence or for purposes of cultivation, in as much as the greater part (about three-fourths†) is one vast sheet of salt water, which we call **the Sea**.

The Sea is generally very deep; its depth exceeds 4 miles in many parts, but the average depth is about 2 miles. The bed of the Sea is therefore **uneven**. The Sea surrounds completely at least three extensive tracts of land to which

* For the proofs of the Earth's roundness, see p. 8.

† More strictly, 52 millions of square miles are land and 148 millions of square miles are water.

the names **the Old World, the New World or America, and Australia**, have been given.* These three tracts of land are separated from one another by the Sea which, however, serves as the great highway of communication between them.

The **land surface** of the Earth is **uneven** like the bed of the Sea. There are numerous elevations on the land, and a few of them are more than 5 miles in height, as measured from the level of the Sea ; but the Earth is so large a body, that in comparison with its diameter, the heights of the very highest elevations fall into insignificance.

Within the bowels of the Earth there are clay, water, metals, coal, and other substances. These do not all occur in the same place, nor at the same depth. We excavate wells to draw out the water, and if the well is deep, the water is found to be very pure. Again, by digging mines, we bring out metals and other valuable minerals from the inside of the Earth.

The Earth is surrounded by an envelope of air, which we call **the atmosphere**. The height of the atmosphere above the Earth's surface is not considerable ; most probably it is less than 50 miles.

The Earth is completely surrounded by the skies, for people living in different parts of the Earth all see the skies over their heads. From any one part of the Earth, of course, the whole of the skies is not visible—only one half can be seen in the form of a dome. It will be observed that the Earth being surrounded on all sides by limitless space which we call the skies or the heavens, there is no visible support of any sort to hold it up. **The Earth** is as much **a heavenly body** as the Sun, the Moon, and the stars.

THE ROTATION OR THE DIURNAL MOTION OF THE EARTH.

The Earth is lighted up by the Sun ; but as the Earth is a round body, the Sun can light up only one-half of its surface at the same time. It can light that half which is 'turned

* See the Globe which represents the Earth on a small scale.

towards it. It is day over the half which is in sunshine, and night over the other half which is in shade. Now, as there is no part of the Earth which is perpetually in sunshine, or perpetually in shade, in other words, as there is a succession of day and night* everywhere on the face of the Earth, one of the two following things must be happening :—(1) either, the Sun remaining fixed, the Earth is turning round itself, like a top when it is spinning, so as to present different parts of its surface, in succession, towards* the Sun, or (2) the Earth remaining fixed, the Sun is moving round it, lighting up the various* parts of its surface, in succession. The second supposition will probably appear to you to be more reasonable than the first, for you notice every day that the Sun rises in the east, and sets in the west, to reappear the next morning • from the other side of the Earth ; on the other hand, you do not see the Earth moving in any manner. But, after all, what you notice may not be real—it is possible that you may have been deceived. A common experience will explain the nature of the mistake you may have made. Suppose two railway trains *A* and *B* are at rest, side by side, and one of them *A* just begins to move (say, from W. to E.). A passenger in *A*, if he fixes his attention solely on the other train *B*, will very likely conclude that the train *B* has begun to move (from E. to W.), and that his own train *A* is still at rest. In like manner, it is impossible to decide by watching the Sun alone • (which you may compare to *B*), whether it is the Earth (which you may compare to *A*) or the Sun that is moving. Thus • you see that it is quite possible that the motion of the Sun which you notice *may be* merely *apparent* like that of the train *B*, and also that the first supposition *may be* correct. Now, which of these two opposite views are we to adopt ? Here the astronomers come to our help. They have given us a large number of very strong reasons which all support the first view, but not the second. We are certain, therefore, that *the Earth is not at rest, but is continually turning round one of its diameters, from west to east.* This diameter is called the **axis of the Earth**. The motion of the Earth round the axis is called the **rotation of the Earth** or its

* Here *day* means the period during which the Sun is continuously visible—not necessarily 12 hours ; similarly *night* means the period during which the sun is continuously invisible—not necessarily 12 hours.

diurnal motion, and the time in which one such rotation is completed (*viz.*, twenty-four hours), we call **a day**.* To the rotation of the Earth we not only owe the division of time into days, but also the **succession of day and night**.

THE REVOLUTION OF THE EARTH OR ITS ANNUAL MOTION ROUND THE SUN.

At night we see a countless number of stars in the heavens. Most of these are always seen to remain at fixed distances from one another, *i.e.* the distance between *any two* among them remains the same *at all times*. Hence such stars are called the **fixed stars**. Now, the astronomers have found that the Sun changes its position among the whole system of fixed stars from day to day. The Sun therefore appears to be moving in the heavens, and the nature of the path which the Sun appears to follow has also been studied by the astronomers. It has been found by them that the Sun appears to move in the **heavens** or in (endless) **space**, in a circular path round the Earth, which it completes once in every 365 days and 6 hours. If you have understood the true nature of the motion which is called the *rotation* of the Earth, you will at once ask yourself "May it not be the case that the Sun is fixed in space, but that the Earth is moving in space, in a circle round the Sun, at the same time that it is turning round one of its diameters?" To decide between these two views both of which may appear equally probable to you, it would be necessary to consider certain astronomical questions which you are too young to understand. The astronomers who have considered these questions will tell you that your doubt about the Sun's motion is perfectly justified. The true view is that while the Earth is rotating round its axis, it is not confined to any one particular part of the heavens; on the other hand, *when it is rotating, it is at the same time moving round the Sun, from W. to E. in a circular† path, once in every 365 days and 6 hours.‡* This motion of the Earth round the Sun is called the **revolution of the Earth** or its **annual motion**, and the time in

* More strictly, a sidereal day.

† The path is not exactly a circle, but is very nearly so.

‡ More strictly, the time is a few minutes shorter.

which one such revolution is effected we call **a year**. Thus the revolution of the Earth gives us the division of time into years. The path in which the Earth, in its annual motion, goes round the Sun is called **the Earth's orbit**.*

Gravitation. It is very interesting to consider how the annual motion of the Earth, in a circular path round the Sun, is maintained. You know that you can tie a stone at the end of a piece of string, and then, holding the other end of the string in your hand you can exert a certain force on the stone, and make it whirl round in a circle. Had there been a chain connecting the Earth with the Sun, we would have said, following the illustration, that by means of the chain, the Sun (which is really a much larger body than our Earth) exerted a certain force on the Earth, causing the latter to move round the Sun. However, the absence of a connecting chain between the Sun and the Earth does not really affect the above explanation. We are familiar with the fact that in some cases a force *does act* between two bodies *not visibly connected*. For instance, we know that a magnet attracts a piece of iron from a distance, there being *no visible connection* between the magnet and the iron. In the case of the Earth, we have only to imagine that the force exerted by the Sun on it resembles, *in the above respect*, the force exerted by a magnet on a piece of iron. The force exerted between the Sun and the Earth is one instance of what is called the **force of gravitation**.

The Earth is a planet. The Earth is not the only body which the Sun whirls round itself; there are several other bodies which are acted upon by the Sun in exactly a similar manner. The Earth and the other bodies which revolve round the Sun are called **planets**. The planets are not luminous by themselves; they appear bright by the light of the Sun falling upon them. The planets should be distinguished carefully from the fixed stars. The latter are luminous by themselves, and as pointed out before, they do not change their positions with respect to one another.

* While the Earth performs its annual motion round the Sun, the Earth's axis always remains parallel to itself (being at all times inclined at an angle of about $66\frac{1}{2}^{\circ}$ to the plane of its orbit).

As the Sun does not really move* among the fixed stars in the heavens and as it is a self-luminous body, it is of course, also a fixed star. Conversely, the innumerable fixed stars are so many suns, differing from our own Sun mainly in one respect, *viz.*, that they are at vastly greater distances from the Earth; it is for this reason only that they appear to be smaller and less powerful bodies than our Sun.

THE SIZE AND SHAPE OF THE EARTH.

We have seen that the Earth rotates round one of its diameters, called its axis, which ends both ways at the Earth's surface. The points where the axis meets the Earth's surface are called the **poles of the Earth**; one extremity† is situated to the north of Asia, Europe, and America, and the other extremity lies far away from South America, towards the south. The former extremity is called the **North Pole**, and the latter the **South Pole**. The length of the Earth's axis, from pole to pole, is 7,899 miles. The distance from pole to pole is often called the **polar diameter** of the Earth.

If we imagine a circle running round the Earth midway between its poles, it will divide the Earth into two equal halves. The circle so imagined is called the **Equator** or the **Equinoctial line**. It is clear that the diameters of the Equator all pass through the Earth's centre and are, therefore, also the diameters of the Earth. Any one of these diameters is called the **equatorial diameter** of the Earth. The length of the equatorial diameter is not exactly the same as that of the polar diameter, being greater than the latter by about 27 miles. This shows that the Earth is *not exactly a round body*, for had it been so, all its diameters would have been equal.

To get a good idea of the shape of the Earth, you may place a ball made of soft clay or bread dough on a flat

* You will hereafter learn that, strictly speaking, the Sun *has* a motion which, however, is not an *apparent* motion *due to the revolution* of the Earth.

† See the Globe.

piece of wood and *very gently* press the ball at the top by another similar piece of wood. The ball will of course get slightly bulged out at the middle, and somewhat flattened at the top and the bottom. In the case of the Earth there is a similar bulging out at the Equator, and a similar flattening at each of the two poles. By this you are not to suppose that there are two dimples at the two poles of the Earth; all that you are to understand is that the Earth is somewhat (though very slightly) egg-shaped.

Roughly speaking, we may take the Earth to be a sphere (*i.e.* a round body) of which the diameter is about 8,000 miles, and the Equator to be a circle of which the circumference is about 25,000 miles.

Summary. The Earth is a round body of vast size. Its diameter is about 8,000 miles, the circumference about 25,000 miles, and the area of its outer surface nearly 200 millions of square miles. About three-fourths of its outer surface is water, and the rest is land on which we live. The surface of the land, as also the bed of the sea, is uneven. The Earth has two motions : (1) It moves round the sun in a nearly circular path, once in every 365 days and 6 hours. This motion is called the **revolution of the Earth or its annual motion**, and the time in which one such revolution is effected is called **a year**. (2) While it revolves round the Sun, it also turns round one of its own diameters (called its **axis**) as a top does when it is spinning. This motion is called the **rotation of the Earth or its diurnal motion**. The time in which one such rotation is effected is 24 hours, and this period of time we call **a day**. The rotation of the Earth gives us also the **succession of day and night**. The extremities of the Earth's axis are called the **poles**. There are, of course, two poles—one of them is called the **North Pole**, and the other, the **South Pole** (see the Globe for the positions of the poles). The Earth is not exactly round. It is **somewhat** (though very slightly) **egg-shaped**; a circle imagined as passing round the Earth, through its two Poles, has a radius which is rather smaller than that of the circle (called the **Equator**) imagined as passing round the Earth midway between its poles.

SECTION II.

PROOFS OF THE EARTH'S ROUNDNESS.

That the earth is not flat, but round, will be clear from the following considerations :—

(a) Vessels starting from a place and sailing always in the same direction come back to the point from which they started. The earth's surface *can not therefore be flat*.

(b) If we stand on the sea-shore and watch a ship putting out to sea, we lose first the hull, then the lower sails, until at last the highest parts of the masts disappear. Were the surface of the earth flat, the whole ship would disappear from view *at the same time*. The *gradual* disappearance of the ship shows that the surface of the earth is really convex like that of a dome, and this convex surface is interposed between us and the ship. This proves conclusively that the surface of the earth *is not flat*.

(c) On all sides of us we see a circle of land, or sea, or both, on which the sky seems to rest ; this is called the *horizon*. If we observe it from a vessel on the sea, or from a plain, this circle is small ; but if we look out from the top of a ship's mast or from a hill, we find it largely increased—in fact, the higher we go the more is the horizon extended, always however retaining its circular form. Now, the sphere (*i. e.* a round body) is the only figure which, looked at from any external point, is bounded by a circle, and as the horizons of *all places* are circular, *the earth is a sphere*, or at all events nearly so.

(d) In eclipses of the moon, the earth, acting as a screen, stops the sun's rays from reaching the moon and thus casts a shadow of itself on the moon ; it is easy to see on such occasions that the shadow is *always* circular. This proves that *the earth is round*, for only a round body can *always* give a round shadow.

(e) If the earth's surface were flat, any star situated above the plane would be seen simultaneously from all points of the earth, except when concealed by mountains or other obstacles, and any star below the plane would be everywhere simultaneously invisible. In reality, stars may be visible from *one* place which are invisible from another ; and all the appearances presented are found to agree with what might be expected on a *spherical earth*.

CHAPTER II.

DEFINITIONS OF GEOGRAPHICAL TERMS.

NOTE:—*The student will be expected to find out in the Maps the positions of the various places mentioned in this chapter. In most cases the Map of the World will be found sufficient for the purpose.*

I.

In describing the land-surface of the Earth certain terms are used as defined below:—

1. **Continent.** Each of the six largest divisions of the land surface of the Earth is called a **Continent**. These divisions are:—**Asia, Europe, Africa, North America, South America, and Australia.**

OBS. 1. ✓ North America and South America are sometimes spoken of as *one* continent—America.

OBS. 2. ✓ Australia is an *island* (see def. 3, page 10), but owing to its vast size it is reckoned as a *continent*.

OBS. 3. ✓ A large *country* (see the next def.) like India, inhabited by numerous races speaking different languages, is sometimes spoken of as a *continent*.

OBS. 4. ✓ Asia, Europe, and Africa constitute what is called **the Eastern Hemisphere or the Old World**. North America and South America make up **the Western Hemisphere or the New World**. America was discovered by Columbus only about four hundred years ago (1492 A. D.) and is hence called the New World.

OBS. 5. ✓ **Antarctica** is the name given to the vast extent of land which is conjectured by explorers to lie about the South Pole of the Earth.

OBS. 6. ✓ **Oceania**, in its most extended sense, includes (a) **Australasia**, comprising the islands of Australia, Tasmania, and New Zealand; (b) **Malaysia**, consisting of the islands of the Malay Archipelago (*i. e.* Borneo, Sumatra, Java, Celebes &c.), the Philippines, New Guinea, and some smaller

islands ; and (c) **Polynesia**, comprising the numerous *small* islands scattered about in the Pacific Ocean (see def. 1, page 11).

2. ✓ **Country**. The largest divisions of a continent are called **Countries** ; as, India, France etc.

Obs. 1. ✓ England, Scotland, Ireland, and the Japan Islands, partly owing to their large size, but chiefly on account of their high civilisation and the political importance of their peoples, are reckoned as *countries*.

Obs. 2. ✓ For purposes of administration, a country is divided and sub-divided into smaller areas having different names in different countries. Thus in India, the terms *Presidency, Province, District, Town* etc. are used. In England, Scotland etc., the terms *County, Town* etc. are employed.

3. ✓ An **Island** is a portion of land wholly surrounded by water ; as, Great Britain,* Ireland,* Australia,† Ceylon.

(3a.) ✓ Many islands situated close together are collectively called an **Archipelago** ; as the Malayan Archipelago (S. E. of Asia), the Grecian Archipelago between Greece and Asia Minor.

4. ✓ A **Peninsula** is a portion of land almost surrounded by water ; as, Arabia, the Iberian Peninsula (including Spain and Portugal).

✓ 5. A **Cape** is a point of land projecting into the sea ; as, the Cape of Good Hope (S. of Africa).

✓ Obs. A Cape is sometimes called a *promontory*, a *head-land*, a *head*, a *naze*, a *ness*, a *point*, a *bill*, a *mull* &c.

✓ 6. A **Mountain** is an elevation of land rising considerably above the surrounding surface ; as, the Himalayas.

✓ (6a.) A **Hill** is a smaller elevation of land than a Mountain ; as, the Vindhya Hills in the middle of India.

✓ (6b.) A *pointed top* of a mountain is called a **Peak** ; as, Mt. Everest, a *peak* of the Himalayas.

* See obs. 1, definition 2.

† See obs. 2, definition 1.

7. A **Volcano** is a mountain which sends forth fire, smoke, lava* etc.; as, Mt. Etna, in Sicily.
- ✓ 8. An **Isthmus** is a narrow neck of land joining two larger bodies of land; as, the isthmus of Panama, joining together North America and South America.
- ✓ 9. A **Shore** or **Coast** is a strip² of land bordering on the sea; as, the Coromandel Coast, bordering on the Bay of Bengal.

10. A large, level tract of land is called a **Plain**; as, the plain of Siberia.

(10a.) An elevated plain is called a **Table-land** or a **Plateau**; as, the Pamirs, in the middle of Asia.

11. A **Valley** is a portion of land lying between two mountains or hills.

Obs. A deep and narrow valley is called a *gorge, ravine, glen, pass* etc.

12. A barren and sandy tract of land is called a **Desert**; as the Sahara, in Africa.

13. An **Oasis** is a fertile spot in the midst of a desert; as, Twat, Bilma etc., in the desert of Sahara.

14. The tract of land drained by a river and its tributaries† is called its **Basin**, and the high ground separating two river basins is called a **Watershed** or **Water-parting**.

15. When a river falls into the sea by several branches,† the triangular space (resembling the Greek letter Δ) enclosed by the sea and the two branches farthest apart from each other is called the **Delta** of the river; as, the Gangetic Delta, the Delta of the Nile.

II.

In describing the divisions of the waters of the Earth, usually called *the Sea*, certain terms are used as defined below :—

1. **Ocean**. Each of the six largest divisions of the vast body of water on the surface of the Earth is called an **Ocean**.

* *Lava* means molten rocks.

† See def. 7, following.

These are :—the **Arctic**, the **Atlantic**, the **Pacific**, the **Indian**, the **Great Southern**, and the **Antarctic**.

2. A **Sea** is a large body of water smaller than an Ocean ; as, the Mediterranean Sea.

N. B.—It will be noticed that the term *the Sea*, used in the preceding pages, does not mean the same thing as *a sea*.

3. A **Gulf** is a portion of water almost surrounded by land ; as, the Persian Gulf.

4. A **Bay** (or **Bight**) is a gulf with a wide mouth ; as, the Bay of Bengal.

5. A **Lake** is a body of fresh water entirely surrounded by land ; as, Lake Tchad, in Africa.

OBS. 1. A body of salt water entirely surrounded by land is often called a *Sea* ; as, the Caspian Sea, the Dead Sea (in Turkey-in-Asia).

OBS. 2. A *lake* is sometimes called a *mere* in England, a *loch* in Scotland, and a *lough* in Ireland.

OBS. 3. A *lake-basin* is the tract of land drained by the rivers flowing into a lake.

6. A **Strait** is a narrow passage of water uniting two large bodies of water ; as, the Behring Strait, uniting the Arctic Ocean with the Pacific ; the Straits of Gibraltar, uniting the Mediterranean Sea with the Atlantic Ocean.

(6a.) A **Channel** is a passage of water, wider than a Strait, uniting two large bodies of water ; as, St. George's Channel, uniting the Irish Sea and the Atlantic Ocean.

N.B.—The term *Channel* is sometimes used in a different sense to denote a gulf or a bay gradually narrowing far inland ; as, the Bristol Channel (S. of Wales).

7. A **River** is a stream of fresh water issuing from a mountain, hill, or any other elevated land, or from a lake, and running into an ocean or a lake ; as, the Ganges.

OBS. 1. A river that runs into a larger river is called a *tributary* or *affluent* of the latter ; as, the Jumna is a tributary of the Ganges.

A *Confluence* is the place where a river and any of its tributaries meet.

OBS. 2. A river which breaks out of another and takes a course of its own is called a *branch* of the latter ; as, the Hughli is a branch of the Ganges.

OBS. 3. The place where a river begins is called its *source*, and where it ends, its *mouth*. The *right* and the *left banks* of a river are those to the right and left, respectively, of a person proceeding from the source to the mouth.

OBS. 4. An *Estuary* or *Firth* is the mouth of a river, when the mouth is wide ; as, the Humber, on the east of England.

8. An **Archipelago** is a sea studded with many islands ; as, the Malay Archipelago, the Grecian Archipelago.

OBS. The Grecian Archipelago is sometimes called "*The Archipelago*."

N.B.—Compare def. (3a), p. 10.

CHAPTER III.

EUROPE.

Boundaries. Europe is bounded on the north by the Arctic Ocean; on the west by the Atlantic Ocean; on the south by the Mediterranean Sea, the Aegean Sea, the Sea of Marmora, the Black Sea, and the Caucasus Mountains; and on the east by the Caspian Sea, the Ural River, and the Ural Mountains.

Extent. The continent of Europe represents but a small fraction (about one-fourteenth) of the entire land surface* of the World. It is somewhat larger than Australia, but is much smaller than every other continent in the World. Its greatest length from N. to S. measured from the North Cape to Cape Matapan is 2,400 miles, and its greatest length from E. to W. is about 3,400 miles.

Importance of Europe among the continents. Although Europe is so small among the continents, still it is distinguished far above the rest by the superior intelligence, industry, and enterprising character of its people, by the flourishing condition of the arts, sciences, manufactures, and commerce, and by its political influence over the rest of the world. No doubt, Europe enjoys an exceptionally healthy climate, the mineral resources of the continent are great, the forests abound with valuable trees, the soil is generally fertile, and the seas penetrate farther inland than they do in the other continents, thus giving Europe a longer coast line relatively to its area, so that its different parts are not too far away from the sea for the purposes of commerce. But these natural advantages alone are insufficient to account for the pre-eminence enjoyed by Europe in the civilized world. The United States of America, to take a single instance, possess most of these natural advantages; yet, before the Europeans went over to settle there, these advantages had never been

* The entire land surface of the World measures about 52 millions of sq. miles; the area of Europe is about 3½ millions of sq. miles.

utilised by the original inhabitants of that splendid country. Natural resources are certainly essential to the elevation of a country in the scale of civilization, but unless the people themselves are resourceful, intelligent, and industrious, these do not count for much.

Though Europe is by far the smallest of the continents (except Australia), in population it stands second only to Asia*; but the density of population *i.e.* the average number of inhabitants per square mile is much greater in Europe than it is in Asia. In Europe the average number of inhabitants per square mile is about 103, while in Asia it is supposed to be about 46.

Political Divisions. Europe is at present divided into 18 *principal* States independent of one another. Arranged in order of size, they are as follows :—

Russia.	Italy.
Sweden and Norway.	Roumania.
Austria (or Austro-Hungary).	Portugal.
Germany (or the German Empire).	Servia.
France.	Greece.
Spain.	Switzerland.
Turkey.	Denmark.
The United Kingdom of Great Britain and Ireland (or the United Kingdom).	Holland (or the Netherlands).
	Belgium.
	Montenegro.

Natural Features. Europe is washed on three sides by the Arctic Ocean, the Atlantic Ocean, and the Mediterranean Sea, respectively, so that it may be regarded as a **peninsula**. The two latter carry the enormous commercial traffic of Europe with the other continents. The *Mediterranean* is almost an **inland sea**, connected with the Atlantic by the narrow Straits of *Gibraltar*. It is also connected by narrow passages with another Sea, the *Black Sea*, which is nearly inland like itself. Both the Mediterranean and the Atlantic

* The population of the World is estimated at about 1500 millions. The population of Europe is nearly 393 millions.

penetrate far into the land in many places, and hence it is that the ratio of the **length of the coast-line** to the area is so large for Europe, and there are so **many peninsulas** in the continent. If we exclude Russia, Europe may well be regarded as a **mountainous** continent. Among the mountains, the most important are *the Alps*, the main ridge of which separates Italy both from France and Switzerland. The off-shoots of the Alps spread themselves over Switzerland and the western part of Austria, and render the former the most mountainous country in the continent. The *Carpathian Mts.* (in Austria), the *Apennines* (in Italy), and the mountains of Turkey are all extensions of the Alps. The highest peak of the Alps is *Mont Blanc*, situated in the S. E. of France, which reaches the height of 15,791 ft. above the level of the sea; but *Mt. Elburz*, a peak of the *Caucasus Mts.* surpasses Mont Blanc, reaching the great height of 18,572 ft. The Caucasus Mts. form a **natural barrier** between Europe and Asia; on the east, the *Ural Mts.* may be regarded as a sort of natural boundary between the same two continents, but it should be observed that the Ural Mountains are of no great height. Mountains abound also in Spain and Norway. There are a few **volcanoes** in Europe, situated mostly in the islands, but one of them, *Mt. Vesuvius*, is on the continent (S. of Italy). In the island of *Iceland* (in the Atlantic Ocean) there is not only a volcano—*Mt. Hecla*—but there are also a number of **geysers** or boiling springs which throw up water to heights approaching one hundred feet. The most elevated regions of Europe are Switzerland and the southern part of Germany adjoining it. Two of the most important rivers of Europe, the *Danube* and the *Rhine*, rise from this **plateau**. The greater part of Russia, Hungary, the northern portion of Germany, the southern portion of Sweden, Denmark, Holland, Belgium, the north-western part of France, and the United Kingdom are **plains**; indeed about a fifth part of Holland is several feet **below the level of the sea**, and dykes have been constructed at enormous cost to protect it from the encroachments of the sea. There are large **forest** tracts in Russia, the German Empire, Austria, Switzerland, and in Norway and Sweden. Europe is well watered by several rivers, but, with a few exceptions, they are not large—the *Volga*, which is the largest, is 2,400 miles long. There are two large lakes, *L. Ladoga* and *L. Onega*,

and a number of small lakes in the north-western part of Russia. A few small lakes, the largest of which is the Lake of *Geneva*, occur in the Alpine regions in Switzerland and Italy. They are remarkable for the beauty of the scenery amidst which they are situated.

THE STATES OF EUROPE.

Their relative size and population. We have seen that there are, in Europe, 18 principal states. These differ very greatly from one another in size. The area of Europe is about $3\frac{3}{4}$ millions of sq. miles, and Russia includes over half of this area. Russia is nearly 24 times larger than Great Britain, and 577 times larger than Montenegro, which is the smallest of the above states. Denmark owns the large island of Iceland; this island is not of much importance, but if its area be added to that of Denmark, the combined area will be larger than Roumania. Russia, Germany, Austro-Hungary, the United Kingdom, France, and Italy have the largest population,* in the order named, but the density of population, *i. e.*, the average number of people in a square mile is the greatest in Belgium (589). Holland comes next, the number being 409, and the United Kingdom, with a density of 344, occupies the third place.

Further remarks on the states of Europe. Great Britain consists of England and Wales, and Scotland. Great Britain and Ireland are, geographically, two islands. The term **United Kingdom** includes them both. Wales was united to the kingdom of England by Edward I. so early as 1282 A.D., and since that time it has been considered as a *principality* of England, the eldest son of the English King being nominally the Prince of Wales. Parts of Ireland were conquered by the English King Henry II., but the whole of it was declared by him as nominally annexed to England in 1180 A. D.; his successors have gradually brought the whole of the island under their rule. England and Scotland came under one King in the year 1603. James VI., King of Scotland, happened to be the nearest heir to the English throne, and thus became the King of England too.

* Population of Russia, 106 millions; of Germany, 56 millions; of Austro-Hungary, 45 millions; of the United Kingdom, 41 millions; of France, 39 millions; of Italy, 32 millions.

He assumed the title of James I. of England. In this way England, Wales, Ireland, and Scotland have come to be governed by one and the same king.*

Sweden and Norway became a single kingdom in 1815 A. D. ; in that year the King of Sweden became the King of Norway also. The union between the two countries, however, is not so close as that among the several territories forming the United Kingdom.

The **Emperor of Austria** was crowned **King of Hungary** in 1867 A. D. The nature of the union between the two territories is very similar to that between Norway and Sweden.

Germany or, more properly, the **German Empire** consists of a large number of smaller states, which were united together in 1871 A. D. under the leadership of the **King of Prussia** who, on that occasion, assumed the title of **German Emperor** or the **Kaiser**. **Prussia** is the largest of the German states ; the other large states are the kingdoms of **Bavaria** and **Saxony**, and the Grand-Duchy of **Baden**. Each state manages its own internal affairs, and it is curious to note that in the Empire there are three cities each of which forms a state by itself and that none of these cities has got a king. The internal affairs of each state are managed by the representatives of the people, *i.e.*, the government is **republican** in character. **Hamburg**, the first commercial city in the Empire, is one of them.

France and **Switzerland** are also **republics**, but they differ from each other in one important respect. Switzerland is divided into a number of smaller areas called **cantons**, each of which manages its own internal affairs, and there is also a parliament called the '**Federal Assembly**' which deals with matters of national interest. Switzerland is therefore styled a "**confederated republic**." In France there is but one central government.

Russia and **Turkey** each possesses vast territories in Asia ; hence we often speak of them as two *Empires*—the **Russian Empire** and the **Turkish** or the **Ottoman Empire**—the Empire, in each case, including the dominions in both continents. The Emperor of Russia is called the 'Czar of all the

* For further details see under the respective countries.

Russias,' or more simply **the Czar** ; the Emperor of Turkey is known as the **Sultan**. * The Sultan of Turkey is the only Muhammadan ruler in Europe, although his subjects are not all of his own religious persuasion, being many of them Christians. Turkey is the most backward state in Europe and is spoken of as **the sick man of Europe**. In the last century, specially in its latter part, Turkey lost many of her European territories. **Montenegro, Serbia, and Roumania** were originally parts of the Ottoman Empire, but one after the other they threw off the Turkish yoke, in the order named, and placed themselves under Christian rulers.* The ruler of Montenegro is styled *Prince* ; hence this state is called a **Principality**. Serbia and Roumania, being governed by *kings*, are called **Kingdoms**.

In addition to the 18 independent states mentioned before, Europe contains 7 other states which are dependent more or less upon other states. Among these (1) **Bulgaria** is the most important. It is nominally a part of Turkey and a dependency of that Empire, but practically it is independent. Bulgaria is governed by a Christian ruler, like Roumania, Serbia, and Montenegro, and is generally looked upon as a distinct principality.

(2) The **Grand-Dutchy of Luxemburg** (situated to the S. E. of Belgium) which was formerly a part of the German Empire has now little connection with it.

(3) The **Principality of Liechtenstein**, lying between the Austrian province of Tyrol and the river Rhine, practically forms a part of the Austrian Empire.

(4) The island of **Candia or Crete** (situated in the Mediterranean Sea) was formerly a Turkish possession and only a few years ago (1898 A. D.) it was placed under a Christian Prince, through the influence of the more powerful states in Europe. It is, like Bulgaria, considered a dependency of Turkey.

(5) **Monaco** is a very small principality measuring only eight square miles, which is to a certain extent under the protection of France. It is situated in the south-east of France, on the Mediterranean Sea. The small town of **Monte Carlo** is a notorious gambling den, where many a rich man has been ruined.

(6) **San Marino** is a small state (area, 30 sq. miles) in the N. E. of Italy. It is to some extent under the protection of the King of Italy. It is a republic.

* *Bosnia and Herzegovina*, which now form parts of Austro-Hungary, were detached from Turkey in 1878 A.D.

(7) **Andorra** is a small principality (area, 150 sq. miles) in the N. E. of Spain ; in some respects it is under the joint protection of France and Spain.

We have just now noticed that out of the 18 principal independent states of Europe, 4 are Empires, 1 is a Principality, and 2 are Republics ; the remaining eleven are all Kingdoms. In wealth, population, military power, and political influence, the following six states rank much higher than the rest. These states are :—the United Kingdom, Germany, Russia, Austria, France, and Italy ; hence they are called **the Six Great Powers of Europe**.

SEAS, GULFS, Etc.

White Sea ...	... north of Russia.
Baltic Sea (including the Gulfs of Bothnia, Finland, and Riga) ...	... west of Russia and Prussia, and east of Sweden and Denmark.
North Sea or German Ocean ...	... between Great Britain and the "Continent."
Skager Rack & Cattegat	... the Baltic and North Seas.
North Channel ...	... Scotland and Ireland.
Irish Sea ...	... England and Ireland.
St. George's Channel ...	... Wales and Ireland.
English Channel ...	... England and France.
Bay of Biscay ...	... west of France,
Mediterranean Sea ...	... between Europe and Africa.
Gulf of Lions ...	... south of France.
" " Genoa ...	... N. W. of Italy.
" " Taranto ...	... south of Italy.
Adriatic Sea ...	... east of Italy, and west of Austria, Montenegro, and Turkey.
Gulf of Venice ...	... N. E. of Italy.
The Archipelago, or Aegean Sea ...	... between Greece and Turkey-in-Asia.
The Levant ...	... west of Turkey-in-Asia.
Sea of Marmora ...	... between Turkey-in-Europe and Turkey-in-Asia.
Black Sea with Sea of Azov ...	... south of Russia.

ISLANDS.

In the Arctic Ocean :—

Spitz Bergen, Nova Zembla, Waygatz, Kolguev, and Lofoden.

In the Atlantic Ocean :—

Iceland, Faroe, Shetland, Orkney, Hebrides, Great Britain, Ireland, Anglesey, Isle of Man, Isle of Wight, and the Azores.

In the North Sea :—Heligoland.

In the Baltic Sea :—

Zealand, Funen, Bornholm, Laaland, Oland, Gothland, and Aland.

In the Mediterranean Sea :—

Balearic Islands (consisting of Majorca,

Minorca, Ivica, &c.) ... east of Spain.

Corsica, Sardinia, and Elba ... west of Italy.

Sicily, Lipari, Malta, and Gozo ... south of Italy.

The Ionian Islands ... west of Greece.

Candia or Crete ... S. E. of Greece.

The Cyclades and Negropont (or

Eubœa) ... east of Greece.

Cyprus ... in the Levant.

Remarks on the Islands.

The first four islands belong to Russia, and the Lofoden Isles to Norway. Omitting Iceland, Faroe Isles, and the Azores, the rest of the Atlantic islands in the above list are included under the name of the **British Isles**; the United Kingdom owns the islands of **Malta** (chief town: *Valetta*), **Gozo**, and **Cyprus**. **Malta** possesses a well-fortified harbour and is the chief station for the British Mediterranean navy. It is called one of the **Keys of the Mediterranean**, the fort of Gibraltar, south of Spain, being considered a second key. **Heligoland** was formerly a British possession; it was ceded to Germany in 1890 A. D. **Gothland**, **Oland**, **Aland**, and **Bornholm** belong to Sweden; **Zealand**, **Laaland**, **Funen**, **Faroe Isles**, and **Iceland** to Denmark. Portugal owns the **Azores**. The **Balearic Islands** belong to Spain; **Sardinia**, **Elba**, **Sicily** (chief town: *Palermo*; pop. 3 lacs), and the **Lipari Islands** to Italy. **Corsica** is politically attached to France. The **Ionian Islands**, **Eubœa**, and the **Cyclades** are all Greek possessions. **Candia** is a dependency of Turkey (see p. 19).

* See p. 48.

MOUNTAINS.

Kiolen	...	...	between Norway and Sweden.
Dovre Field	...	...	in Norway.
The Grampians	...	...	in Scotland. (The highest peak is Ben Nevis.)
Cevennes	...	...	in the south of France.
The Pyrenees...	...	...	between France and Spain.
The Castillian Mts., Sierra			
Toledo, Sierra			
Morena, and Sierra			
Nevada	...	...	in Spain.
The Alps	...	...	in France, Italy, Switzerland, and Austria (The highest peaks are Mont Blanc and Mt. Rosa.)
The Apennines	...	...	in Italy. (The highest peak is Mt. Corno.)
Carpathian Mts.	...	...	in Austria.
Balkan Mts.	...	...	in Bulgaria.
Mt. Pindus	...	...	in Turkey.
Caucasus Mts.	...	...	S. of Russia. (The highest peak is Mt. Elburz.)
Ural Mts.	...	...	E. of Russia.

VOLCANOES.

Hecla	in the island of Iceland.
Etna	in the island of Sicily.
Stromboli	in one of the Lipari Islands.
Vesuvius	in Italy, in the S. W.

PENINSULAS.

Scandinavia	consists of Norway and Sweden.
The Iberian Peninsula	consists of Spain and Portugal.
Jutland	is the mainland of Denmark.
The Crimea	south of Russia.
Italy	south of Europe.

PENINSULAS—(*continued*).

Greece	...	...	south of Europe.
Morea	...	...	is the southern part of Greece.

ISTHUSES.

Corinth	...	...	between Morea and the northern part of Greece.
Perekop	...	...	between the Crimea, and the rest of Russia.

CAPES.

Nordkyn	...	...	N. of Norway.
North Cape	...	...	N. W. of Norway.
The Naze	...	...	S. of Norway.
The Skaw	...	...	N. of Denmark.
Land's End	...	...	S. W. of England.
La Hogue	...	...	N. of France.
Ortega, Finisterre	...	...	N. W. of Spain.
Roca	...	...	W. of Portugal.
St. Vincent	...	...	S. W. of Portugal.
Trafalgar and Tarifa	...	...	S. of Spain.
Spartivento	...	...	S. W. of Italy.
Passaro	...	...	S. E. of Sicily.
Matapan	...	...	S. of Greece.

LAKES.

Ladoga and Onega	...	...	in Russia.
Wener and Wetter	...	...	in Sweden.
Geneva, Lucerne, Neufchatel, and Constance	...	...	in Switzerland.
Maggiore, Como, and Garda	...	...	in Italy.
Balaton or Platten Sea	...	...	in Hungary.

STRAITS.

The Sound	...	...	between Sweden and Zealand.
The Great Belt	...	..	Zealand and Funen.
The Little Belt	...	..	Funen and Jutland.
Dover	...	...	England and France, connecting the North Sea with the English Channel.
Gibraltar	...	...	Spain and Africa, connecting the Mediterranean with the Atlantic.
Bonifacio	...	...	Corsica and Sardinia.
Messina	...	...	Italy and Sicily.
Dardanelles	...	...	Turkey-in-Asia and Turkey-in-Europe, connecting the Aegean Sea with the Sea of Marmora.
Constantinople or Bosphorus	...	...	Turkey-in-Asia and Turkey-in-Europe, connecting the Sea of Marmora with the Black Sea.
Yenikale or Kaffa or Kertch	...	...	connects the Sea of Azov with the Black Sea.

RIVERS.

N. B.—The more important towns on the banks of the rivers are given in foot-notes. The lengths of the five largest rivers are given against their names.

<i>Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Petchora	... Ural Mts.	Russia	Arctic Ocean.
N. Dwina	... N. E. of Russia	Do.	White Sea.
Neva	... L. Ladoga	Do.	G. of Finland.
S. Dwina	... Valdai Hills	Do.	G. of Riga.

<i>Rivers.</i>	<i>Important towns on or near the banks.</i>
N. Dwina	... Archangel.
Neva	... St. Petersburg.
S. Dwina	... Riga.

RIVERS—(continued).

<i>* Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Vistula	... Carpathian Mts.	Austria, Russia, and Prussia	Baltic Sea.
Dniester	... Do.	Austria & Russia	Black Sea.
Dnieper (1,000 m.)	... S. W. of Russia	• Russia	Do.
Don (1,325 m.)	... interior of Russia	Do.	Sea of Azov.
Volga (2,400 m.)	... Valdai Hills	Russia	Caspian Sea.
Ural	... Ural Mts.	Do.	Do.
Oder	... Carpathian Mts.	Prussia	Baltic Sea.
Elbe	... Bohemian Mts. in Austria	Austria & Germany	North Sea.
Rhine (800 m.)	... L. Constance	Switzerland, Germany, and Holland	Do.
Tweed	... S. of Scotland	Scotland & England	Do.
Thames	... Cotswold Hills in the S. W. of England	England	Do.
Seine	... N. E. of France	France	English Channel.
Loire	... Cevennes Mts.	Do.	Bay of Biscay.
Garonne	... the Pyrenees	Do.	Do.
Rhone	... the Alps	L. Geneva, Switzerland, & France	G. of Lions.
Elbro	... Cantabrian Mts. in Spain	Spain	Mediterranean Sea.

*Rivers.**Important towns on or near the banks.*

Vistula	... Cracow, Warsaw, Dantzic.
Dnieper	... Kiev, Kherson.
Volga	... Nijni Novgorod, Astrakhan.
Oder	... Breslau, Frankfort, Stettin.
Elbe	... Dresden, Magdeburg, Hamburg.
Rhine	... Strasburg, Cologne, Utrecht, Leyden.
Tweed	... Berwick.
Thames	... Oxford, Eton, Windsor, London, Greenwich, Woolwich.
Seine	... Paris, Rouen.
Loire	... St. Etienne, Orleans, Tours, Nantes.
Garonne	... Toulouse, Bordeaux.
Rhone	... Lausanne, Geneva, Lyons.

RIVERS—(*continued*).

<i>Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Douro	... Castillian Mts. in Spain	Spain & Portugal	Atlantic Ocean.
Tagus	... interior of Spain	Do.	Do.
Guadiana	... Sierra Morena	Spain & Portugal	Do.
Guadalquivir	Sierra Nevada	Spain	Do.
Tiber	.. The Apennines	Italy	Mediterranean Sea.
Po	... The Alps	Do.	Adriatic Sea.
Danube (2,000 m.)	. Black Forest (in Baden)	Germany, Austria, and Roumania	Black Sea.

Countries. The following are reckoned as the countries of Europe:—**England** and **Wales**, **Scotland**, **Ireland**, **Norway**, **Sweden**, **Denmark**, **Holland**, **Belgium**, **Russia**, **Prussia**, **Austro-Hungary**, **France**, **Spain**, **Portugal**, **Switzerland**, **Italy**, **Greece**, and **Turkey** (with or without its nominal dependency **Bulgaria**). **Bulgaria**, and the three independent states of **Roumania**, **Servia**, and **Montenegro**, detached from Turkey, are *not always* given the dignified name of 'country'; more often they are called *states* (or *principalities* or *kingdoms*—as the case may be). It will be noticed that the United Kingdom comprises three countries. Norway and Sweden are still regarded as two separate countries, although they are under one common king, for in many respects they possess separate forms of government. **Prussia** is the only state in the German Empire which had enjoyed the appellation of *country*, before the confederation of the various states now constituting the Empire.

The states of **Andorra**, **Manaco**, and **San Marino**, which lie within the geographical limits of other countries are, of course, not called countries.

<i>Rivers.</i>	<i>Important towns on or near the banks.</i>
Douro	... Oporto.
Tagus	... Lisbon.
Guadiana	... Badajoz.
Guadalquivir	... Cordova, Seville.
Tiber	... Rome.
Po	... Turin.
Danube	... Ulm, Vienna, Buda-Pest, Belgrade.

PRINCIPAL CITIES AND OTHER PLACES OF NOTE.

N. B.—The cities and other interesting places given below are arranged in order of population, and the capital is given in italics.

England..... ..*London*, Liverpool, Manchester, Birmingham, Leeds, Sheffield, and Bristol are the seven largest cities in England. Other interesting places are Oxford, Cambridge, Greenwich, etc.

London (Pop. 45 lacs)—is the most important, the most populous, and the first commercial city in the world. It is the capital of the United Kingdom and the seat of the British Parliament. It has a famous University and it contains many magnificent public buildings, among which may be mentioned Westminster Abbey, the Houses of Parliament, St. Paul's Cathedral, and the British Museum.

Liverpool (Pop. 7 lacs)—is the second port in the United Kingdom and one of the most important ports in the world. In population it is the third city in the United Kingdom.

Manchester (Pop. 5½ lacs)—is the first cotton manufacturing city in the world. It also manufactures woollen and silk goods, and has large dye, engineering, and chemical works, and paper mills. It is the seat of the Victoria University.

Birmingham (Pop. 5 lacs)—is noted throughout the world for all kinds of metal manufacture.

Leeds (Pop. 4 lacs)—is the chief seat of woollen manufacture in England. There are also numerous other manufactures including those of iron, leather, glass, tobacco, paper, chemicals, and silk.

Sheffield (Pop. 4 lacs)—manufactures cutlery, plated goods &c.

Bristol (Pop. 3 lacs)—was formerly the third port in England, and is still a port of considerable importance; it is famous for ship-building.

Oxford and Cambridge—are the seats of the two oldest Universities in England.

Greenwich—is the seat of the principal Observatory in the United Kingdom and has a large hospital for seamen.

Scotland.....Glasgow, *Edinburgh*, Dundee, Aberdeen.

Glasgow—(on the Clyde) is the second city in the United Kingdom in respect of population, which is $7\frac{1}{2}$ lacs. It is the commercial capital of Scotland. Ship-building is very actively carried on on the Clyde, from Glasgow downwards. Glasgow manufactures cotton, silk, machinery (including locomotives), chemicals &c. It has a University of great note.

Edinburgh (Pop. 3 lacs)—is the seat of the highest courts of law in Scotland and is the capital of the country. Edinburgh is one of the most picturesque cities of Europe, and is adorned with many buildings of great architectural beauty. It is noted for its literary eminence, and has a famous University. It contains the Holyrood Palace, the residence of the Stuart Kings. It is mainly a residential city, but there is considerable activity in the printing and publishing lines.

Dundee (Pop. $1\frac{1}{2}$ lacs)—is famous for linen and jute manufactures ; the jute is supplied wholly from one province of India, *viz*, Bengal. It is the centre of the whale and seal-fishing trade in Great Britain. It is an important seaport and is famous for its ship-building industry and manufacture of machinery.

Aberdeen (Pop. $1\frac{1}{2}$ lacs)—is the northern seaport of Scotland, noted for its granite works ; fish-curing is also an important industry. There is a University in this city.

Ireland.....Belfast, *Dublin*.

Belfast (Pop. $3\frac{1}{2}$ lacs)—is the chief seat of the Irish linen trade ; it is noted also for its ship-building industry and for manufacture of ropes.

Dublin (Pop. 3 lacs)—is the seat of the Viceroy of Ireland. It contains Trinity College, which is the chief seat of learning in Ireland.

Norway.....*Christiania* (Pop. over 2 lacs)—exports timber.

Sweden.....*Stockholm* (Pop. 3 lacs)—exports the famous Swedish iron, timber etc.

Denmark.....*Copenhagen* (Pop. 4 lacs)—exports cattle, butter, bacon etc. It is situated in the Island of Zealand.

Holland (or the Netherlands).....*Amsterdam*, Rotterdam, the Hague.

Amsterdam (Pop. 5 lacs)—was once the first commercial city in Europe and is still famous for its large trade. The city is intersected by numerous canals, with stone or wooden bridges across them. The principal manufactures are :—woollens, silks, cottons, leather, and sugar.

Rotterdam (Pop. 3 lacs)—is the principal port of the country. It exports textile manufactures, butter, sugar etc.

The Hague (Pop. 2 lacs)—is the seat of the Royal Court and is noted for the national Museum containing a valuable collection of Dutch paintings.

Belgium...*Brussels*, Antwerp, Liege, Ostend, Waterloo.

• **Brussels** (Pop. 5½ lacs)—is famous for manufacture of carpets, ribbons, wool, glass, jewellery etc.

• **Antwerp** (Pop. 3 lacs)—manufactures sugar, white-lead, lace, silk, velvet etc.

Liege (Pop. 1½ lacs)—is famous for manufacture of fire-arms.

Ostend—is a small town interesting as being the ordinary port for communication with England.

Waterloo—is a village where Napoleon Buona-
parte was finally overthrown.

The German Empire...*Berlin*, Hamburg, Munich, Leipzig, Breslau, Dresden, Cologne.

Prussia.....*Berlin*, Breslau, Cologne.

Bavaria.....*Munich.*

Saxony.....*Leipzig, Dresden.*

Berlin (on the Spree)—is the seat of the German Emperor ; it is one of the largest manufacturing and commercial cities in Europe. Its University, Museums etc. are famous throughout the civilized world. It is the third city in Europe and the fourth in the world as regards population, which is 19 lacs.

Hamburg (Pop. over 7 lacs)—is the first commercial city in continental Europe. It exports iron, machinery, woollen articles, chemicals, cattle, grain, sugar, timber etc.

Munich (Pop. 5 lacs)—is famous for its picture galleries.

Leipzig (Pop. 4½ lacs)—has the greatest book trade in the world.

Breslau (Pop. 4 lacs)—is noted for its textile industries of all classes, also for manufactures of lace, soap, earthenware etc.

Dresden (Pop. 4 lacs)—manufactures gold and silver articles, chemicals, wool, porcelain etc. Its picture galleries and museums are famous.

Cologne (Pop. nearly 4 lacs)—is famous for its noble cathedral. It manufactures sugar, eau-de-Cologne etc.

Austro-Hungary.....*Vienna, Buda-Pest, Trieste.*

Vienna (Pop. 17 lacs)—is the fourth city in Europe and the sixth in the world as regards population. It manufactures machinery, scientific and musical instruments &c. The University of Vienna has a world-wide reputation, chiefly on its medical side. The city possesses a famous picture-gallery.

Buda-Pest (Pop. 7 lacs)—is the capital of Hungary.

Trieste—is the chief seaport of the country.

France.....*Paris*, Marseilles, Lyons, Bordeaux.

Paris (Pop. 26½ lacs)—is the second city in Europe and the third in the world in point of population, and is generally considered to be the most beautiful city in the world. It is noted for manufactures of articles of fashion.

Marseilles (Pop. nearly 5 lacs) is the chief seaport in the country.

Lyons (Pop. 4½ lacs)—is the first silk manufacturing city in the world; it is very strongly fortified.

Bordeaux (Pop. 2½ lacs)—is an important seaport; it manufactures brandy, liquors, sugar &c.

Spain.....*Madrid*, Barcelona, Gibraltar.

Madrid.....(Pop. 5 lacs.)

Barcelona (Pop. 5 lacs)—is an important seaport and also a manufacturing city.

Gibraltar—is a most strongly fortified town belonging to Great Britain. It is considered one of the two keys of the Mediterranean, Malta being the second key.

Portugal.....*Lisbon*, Oporto.

Lisbon (Pop. 3½ lacs)—was nearly destroyed by a violent earthquake (1755 A. D.) which resulted in the death of 60,000 of its people. It exports cork, wine, and fruits.

Oporto—has a large trade in wine.

Switzerland.....*Geneva*, *Berne*.

Geneva (Pop. 1 lac)—manufactures watches and musical instruments.

Italy.....*Naples*, *Milan*, *Rome*, *Turin*, *Genoa*, *Florence*, *Bologna*, *Venice* are the largest cities. Other interesting places are *Carrara* and *Brindisi*.

Naples (Pop. 5½ lacs)—is the most populous city in Italy and its natural beauty, due to its magnificent situation, is great. It exports wine, olive oil etc.

Milan (Pop. 5 lacs)—is famous for silk manufacture and for its magnificent cathedral built of white marble.

Rome—(on the Tiber) was long the mistress of the world, and is still majestic with the relics of antiquity; among these the best known is the Colosseum—the old Roman circus, where the gladiators fought with wild beasts and which could accommodate 80,000 spectators. It is famous for St. Peter's Cathedral, which is the most magnificent cathedral in the world. The Pope's palace, the Vatican, adjoins it; the palace contains the master-pieces of Roman painting and sculpture, and a very large library. (Pop. 4½ lacs.)

Turin—is noted for silk manufacture.

Genoa—is the chief seaport of Italy and exports silks, fruits, olive oil etc. Near it is the birth-place of Columbus, the discoverer of America.

Florence—is known as "the Beautiful" on account of its surrounding scenery. Some years ago it was the capital of Italy. Its galleries of painting and sculpture are celebrated.

Bologna—has the oldest University in Europe.

Venice (Pop. 1½ lacs)—was the first commercial city in the world in the 15th century. It is built on a large number of islands close to one another; the city is intersected by numerous canals which serve for streets. The public buildings are built mostly of marble and are superbly decorated. The art-galleries are of priceless value.

Carrara—is famous for its marble quarries.

Brindisi—is a small town, *via* which the overland route from India to England lies.

Russia.....*St. Petersburg, Moscow, Warsaw, Odessa.*

St. Petersburg—(on the Neva) is the fifth city in Europe as regards population, which exceeds 12½ lacs. It was named after its founder, Peter the Great. It has a celebrated University, and is famous for various sorts of manufactures and extensive commerce.

Moscow (Pop. 10 lacs)—was formerly the capital of Russia, and is a great manufacturing and trading city.

Warsaw (Pop. 6½ lacs)—was the capital of the old kingdom of Poland. It is a great military station. It exports large quantities of wheat raised on the plains of Poland.

Odessa (Pop. 4 lacs)—is the chief seaport of Russia; it is situated on the Black Sea. It exports corn, wool, etc.

Turkey.....*Constantinople.*

Constantinople (Pop. 11 lacs)—is a filthy city adorned, however, with a large number of mosques with graceful domes and minarets.

Bulgaria*Sofia.*

Roumania.....*Bucharest* (Pop. 3 lacs)—has large trade in grain.

Servia.....*Belgrade.*

Montenegro...*Cetinje.*

Greece.....*Athens.*

Athens—was one of the greatest cities of ancient times. It has many relics of antiquity.

Forests. Russia, Scandinavia, Austria-Hungary, Germany, France, and Switzerland are the states of Europe which possess any considerable forests. Nearly half of Russia and one-third of Scandinavia and Austria-Hungary are covered with forests. In the United Kingdom not more than 3·5 per cent. of the area consists of forest-lands. The German and the Swiss forests are looked after with great care. The chief forest-trees are :—the *fir* and other *pin*es, *oak*, *birch*, *beech*, *chestnut*, *elm*, and *ash*. The *alder* and *aspen* may also be mentioned. The principal trees in the Scandinavian forests are the *ash*, the *horse-chestnut*, and the *oak*, the last named tree being found in the south of Sweden. In the mountain-forests of Austria-Hungary and Switzerland, we have the *fir*, *oak*, *birch*, *beech*, *ash*, and *elm*; the first three occur also in France, Germany, and Russia. The *chestnut* is found chiefly in France, and the *birch* in Denmark and Russia. The most important forest trees in the United Kingdom are the *oak* and

the beech ; the former occurs principally in the mountainous regions in the north of England and south of Scotland ; the latter is more common in Ireland.

Agriculture. The soil of Europe is generally fertile and, except in a few backward countries like Spain and Turkey, agricultural operations are conducted, more or less, on scientific lines. *Wheat* and the *vine* are the two most valuable agricultural products of the continent, and France takes the first place in the cultivation of both. Wheat forms the staple food-crop of the people and is grown in all the states Russia (which now includes within its limits the fertile province of Poland), and Austria-Hungary rank next to France as producers of wheat. The vine grows luxuriantly in the southern countries, which enjoy a less rigorous climate than the northern ; Italy, Spain, and Portugal are the other countries, besides France, where the vine is cultivated very extensively. *Olives* and different varieties of *fruit trees* also flourish in these southern countries, and *cotton* and *rice* have been cultivated in some of them. *Esparto grass* (used in making paper) is an important product of Spain, and the *madder* (used in dyeing) of France and Turkey. The *cork tree* is cultivated in Spain and Portugal. *Flax* and *hemp* are grown in Russia, Spain, and a few other countries. The cultivation of *beet* is no longer confined to France, but is being steadily pushed on in Germany, Belgium, Holland, Russia, and Austria-Hungary. *Tobacco* is grown in almost all the states, and specially in Turkey, Greece, and Russia. Besides wheat, the other important food-crops are :—*barley*, *oats*, *rye*, *maize*, and *potatoes*. Russia has the largest out-turn of rye, and Germany grows the same crop in considerable quantities. Maize, which is consumed by the lower classes of the population in some of the countries, is grown chiefly in Spain and Italy.

Distribution of the principal agricultural products.

Wheat	... ..	France, Russia, Austria-Hungary, Italy, Germany, the United Kingdom, and in smaller quantities in all the other states.
Barley and Oats	... ..	Russia, France, the United Kingdom, Sweden, Denmark, Germany, Austria-Hungary, etc. (<i>N. B.</i> —Barley is grown in all the states.)

Rye			Russia, Germany, France, Sweden, Denmark, Austria-Hungary, Holland, Belgium, Spain, Portugal, etc.
Maize	...	...	Spain, Italy, France, Austria-Hungary, Portugal, etc.
Rice	...	...	Italy, eastern parts of Spain, and the south of France.
Potatoes	...	...	Germany, France, Holland, Belgium, the United Kingdom, Russia, Norway, Sweden, Denmark, Switzerland, Austria-Hungary, etc.
Cotton	...	...	Italy, Malta, Turkey, Switzerland.
Flax	...	...	Russia, Spain, Ireland, France, Austria, Italy, Holland.
Hemp	...	...	Russia, Spain, Italy, France, Austria-Hungary, Servia.
Tobacco	...	...	Turkey, Greece, Russia, Germany, France, Switzerland, etc.
Olives	...	...	Italy, Spain, Greece, France, Portugal.
The Vine	...	...	France, Italy, Spain, Portugal, Germany, Austria-Hungary, Switzerland, the Crimea, Turkey, Bulgaria, Servia, Greece.
Various fruits	...	...	Spain, Portugal, Italy, Greece, Turkey, Malta, France, Hungary.
Beet	...	...	France, Germany, Belgium, Austria-Hungary, Russia, Holland, Turkey, etc.
Sugar-cane	...	...	Spain, Italy (including Sicily).
Esparto grass	...	...	Spain.
Other paper-making materials	...	...	Norway, Austria, etc.
Linseed	...	...	Russia.
Cork	...	...	Spain, Portugal.

Minerals. Europe is rich in minerals. *Iron and coal* occur in great abundance in several countries, notably in Great Britain, Germany, France, Belgium, and Austria-Hungary, and it is interesting to observe that these are also the principal manufacturing countries in the continent; indeed, the influence of a copious supply of iron and coal on the development of manufactures is obvious. The iron-mines of Sweden are of great value, the Swedish iron being considered

the best in Europe. *Tin, zinc, lead, copper, mercury,* and *marbles* are the other important minerals found largely in the continent. England owns the richest mines of tin, Germany those of zinc, and Spain of lead. Copper does not occur in large quantities in any one country in particular, but on the whole the supply is good. Mines of mercury exist only in Spain, Austria-Hungary, Italy, and Russia, and marbles of the finest quality are furnished by Italy and the islands of the Archipelago. *Gold* and *silver* are not altogether absent; the former is found in small quantities in Austria-Hungary, Italy, and Russia, and the latter in fairly large quantities in Germany, France, Austria-Hungary, and Spain, and in smaller proportions in Great Britain.

Distribution of the principal minerals.

Iron	...	...	Great Britain, France, Sweden, Germany (including Luxemburg), Spain, Austria-Hungary, Belgium, Italy, Russia, Portugal, Greece
Coal	...	...	Great Britain, Germany, France, Belgium, Austria-Hungary, Russia, Sweden, Spain, Turkey, etc.
Tin	...	...	England, Saxony, Bohemia (in Austria), Portugal.
Zinc	...	...	Germany, Belgium, Italy, Great Britain, France, Greece, Austria, Portugal, Russia (Poland), Spain.
Lead	...	...	Spain, Great Britain, Germany, Italy, Greece, Austria-Hungary, Portugal.
Copper	...	...	Great Britain, France, Spain, Germany, Austria-Hungary, Russia (the Ural Mts.), Belgium, Italy, etc.
Mercury	...	...	Spain, Austria-Hungary, Italy, Russia.
Gold	...	...	Austria-Hungary, Italy, Russia (the Ural Mts.).
Silver	...	...	Germany, France, Austria-Hungary, Spain, Great Britain, Italy.
Manganese	...	...	Russia, Austria-Hungary, Greece, Italy, Spain, Portugal.
Platinum	...	...	Russia (the Ural Mts.).
Antimony	...	...	Portugal, Austria-Hungary, etc.
Antimony	...	...	France, Austria-Hungary, Italy, Portugal.
Chalcite	...	...	Russia.

Nickel ...	...	...	France.
Aluminum ...	...	...	France,
Chromium ...	...	...	Bosnia and Herzegovina, Greece.
Asbestos ...	...	...	Portugal.
Petroleum ...	...	...	Carpathian Mts., France, Germany (western part), Italy, Spain, Roumania.
Plumbago ...	...	...	Austria (Bohemia), Italy.
Sulphur...	...	...	Italy (including Sicily), Iceland, Spain, Portugal, Russia.
Salts ...	...	...	England, Germany, Austria, Russia, France, etc.
Marbles...	...	...	Italy, the Archipelago, Portugal.

Zoology. There are but few wild animals in Europe ; cultivation and population have expelled most of them. *Bears* and *wolves* are still met with in the forests, and the *polar bear* is peculiar to the extreme north. The *reindeer* is the domestic animal of the Laplanders ; a few *camels* are reared in Spain, Russia, and Italy. In the last named country *buffaloes* are employed as draught animals. Spain is famous for its excellent breed of *mules* and *asses*, and Iceland and Shetland are well-known for their superior *ponies*. A large number of *horses* are exported annually from Austria-Hungary to several other countries of Europe. Cattle-farming is one of the most important industries in Denmark, Holstein,* Holland, and Switzerland, and is conducted with great success ; much attention is paid to the same subject in the British Isles also. "The World's champion cow of the present time is a Holstein cow which gives 50 seers of milk a day." The fisheries of Europe are of great value. The North Sea and the Atlantic (west of Norway) abound with the *cod* and the *herring*. The *salmon* is found in the rivers of Scotland and Norway, and also in several other rivers of the western countries of the continent. The fisheries of Portugal are also very important. *Sponge-fishing* is carried on in the Mediterranean.

Manufactures, commerce, etc. It has been already noticed that Europe is the smallest of the continents, except Australia, and also that it is the most densely inhabited continent on the globe. If these two facts be borne in mind, it will be clear to you that in the smaller and more densely inhabited

* i. e., the part of Prussia lying to the south of Denmark.

states of Europe, the area available for cultivation and pasturage, and consequently the food supply, must be too short for the requirements of their population. These remarks apply with special force to Great Britain, Belgium, Switzerland, and Holland, and with smaller, though considerable, force to all the other states except Russia, Austria-Hungary, Roumania, and Denmark. It is only in the last four states that it is possible for the people to live upon the products of their own respective countries. Most European states have, therefore, to depend for provisions on the few countries*, in the continent where the supply is larger than the local demand, but to a much greater extent on the fertile countries in the other continents.

Though Europe is at a considerable disadvantage in respect of its food supply, its mineral resources, as observed before, are great. The abundant supplies of coal, iron, and other minerals, in the hands of people unparalleled for their mechanical skill, have brought the manufactures of metals and machinery to such a state of perfection as excites the wonder and admiration of the rest of the world. But to develop manufactures to the fullest extent something more is needed than metals and coal: raw materials of sorts are absolutely necessary for the purpose, but in these Europe is deficient. We have seen that the vine, beet, flax, hemp, olives, vegetable dyes, and paper fibres grow in certain tracts of Europe. These, either directly or indirectly, form the bases of a number of manufactures. Wool is procurable in some quantity in the continent, and it supports another important manufacture. Lastly, the silk produced by silkworms reared in France and Italy† affords material for one of the most thriving manufacturing industries of Europe. This list, short as it is, nearly exhausts the more important raw products of Europe available for purposes of manufacture. Europeans, however, do not depend entirely upon the resources of their own continent, to support their manufactures. They go to all parts of the earth in quest not only of increased supplies of the articles mentioned before,

* In 1900 A. D. Denmark exported to Great Britain butter worth 8 millions of pounds (= 12 crores of rupees).

† Also, to a smaller extent, in Switzerland, Austria-Hungary, Turkey, Greece, and Bulgaria.

but also of any other commodities which would enable them to extend their manufacturing industries. The chief raw materials imported into Europe for manufacture are:—cotton, wool, jute, silk, flax, hemp, hides, oils and oil-seeds, dyes, India-rubber, paper fibres, etc. These materials are converted into manufactured articles, of which a quantity is retained for home consumption, and the remainder exported to various foreign countries all over the world. Speaking generally, Europe imports food-stuff and raw materials necessary for some of its manufactures, and exports a portion of the products of these manufactures, as also metals and machinery, adapted to a variety of uses.

- The manufactures and commerce of all states are not equally advanced. Great Britain is far ahead of all the other states; Germany which has made great progress of late, now takes the second place, and is followed by France. Saxony, Baden, and Wurtemberg are the principal manufacturing states in the German Empire. Holland ranks as the fourth commercial state in the continent, and Belgium as the fourth manufacturing state. The manufacturing industries of Switzerland are also highly developed. Austria and Russia are gradually extending their manufactures and commercial intercourse with other nations.

Table of the chief manufacturing industries of Europe.

N. B.—A part of the manufactured goods forms also the principal articles of **export** from Europe.

Textile manufactures of all sorts (cotton, wool- len, linen, silk, jute, etc.)	... ..	The United Kingdom, Germany (Saxony), France, etc.
Woollen		Great Britain, Germany (Saxony, etc.), France, Belgium, etc.
Silk ...		France, Italy, Belgium, Great Britain, Ger- many, Holland, Switzerland, etc.
Metals (including cutlery, fire-arms, materials for bridges, railway plant, etc.) and machinery of various sorts	... ..	Great Britain, Germany, France, Belgium, etc.

Locomotives	...	Great Britain, Germany, France, Belgium, Russia, etc.
Ships ...	...	The United Kingdom, Norway, Italy, Germany, France, Russia, etc.
Sugar...	...	Germany, France, Belgium, Russia, Austria-Hungary, etc.
Wine ...	...	France, Italy, Spain, Portugal, etc.
Spirits	...	France, etc.
Beer ...	...	Germany (Bavaria, Prussia), Great Britain, Russia, etc.
Leather and leather-goods	...	Great Britain, France, Germany (Baden), Russia, Holland, Greece, etc.
Jewellery	...	France, Holland, Great Britain, Germany, Belgium (Brussels), etc.
Clocks, watches, and musical instruments	...	France, Great Britain, Germany, Switzerland, etc.
Scientific instruments	...	Germany, Great Britain, France, Austria, etc.
Glass ...	...	Great Britain, Austria (Bohemia), Germany, France, Belgium, Italy (Venice), etc.
Porcelain	...	Bohemia, Prussia (Berlin), Saxony (Dresden), England, Denmark (Copenhagen), Russia (St. Petersburg), France.
Drugs, chemicals, and paints	...	Germany, Great Britain, France, Belgium, etc.
Soaps and scents	...	France, Great Britain, Germany, etc.
Paper...	...	Great Britain, France, Germany (Baden), Holland, Spain, etc.
Carpets	...	Belgium, Turkey, England.

List of the principal articles imported into Europe.

Wheat, flour, rice, sugar, animals, preserved meat, fruits, coffee, tea, tobacco, butter, eggs, cotton, wool, jute, silk, flax, hemp, hides, oils and oil seeds, vegetable dyes, India-rubber, timber and wood, paper fibres, spices, opium, ivory, saltpetre, lac, diamond, gold, silver, copper, tin, and other metals.

Climate. Europe is a very healthy continent, and it may be broadly divided into three regions differing markedly from

one another in respect of climate. The first region includes the Arctic islands, the northern-most parts of Norway, and a considerable area in the north of Russia. In these tracts winters are longer than summers, the cold is almost unbearable, and the ground remains constantly frozen with snow; during the winter the islands of Nova Zembla, Spitz Bergen, etc. are cut off from the continent by barriers of ice floating on the ocean. The second comprises the rest of the continent except the countries bordering on the Mediterranean, which make up the third. In the southern countries summers are longer than winters, and the climate is delightfully warm. In the second region, the winter is keen, though it is generally enjoyable; but it is very severe in Scandinavia and Russia (except in their southern portions), and in the island of Iceland. Snow-falls are more or less frequent, still waters are often frozen, and even the Baltic is extensively covered over with ice. The northern-most parts of Europe are less cold than the extreme northern parts of Asia and America, and its western countries are generally warmer than Russia. For further information, see Chap. X.

Races and Religions. See Chapter XI.

CHAPTER IV.

ASIA.

Boundaries. Asia is bounded on the north by the Arctic Ocean; on the east by the Pacific Ocean; on the south by the Indian Ocean; and on the west by the Red Sea, the Isthmus of Suez, the Mediterranean Sea, the Sea of Marmora, the Black Sea, the Caucasus Mts., the Caspian Sea, the Ural River, and the Ural Mountains.

Extent. Asia is the largest continent on the globe, and includes about one-third of its entire land surface. It is about $4\frac{1}{2}$ times the size of Europe. The greatest length from N. to S. is over 5,300 miles, and the length from E. to W., between the East Cape in Russia and Cape Baba in Asia Minor, is nearly 6,000 miles.

PRINCIPAL POLITICAL DIVISIONS.

Russia-in-Asia.	| India (including Burma).
The Japanese Empire.	Baluchistan.
The Chinese Empire.	Afghanistan.
French Indo-China.	Persia.
Siam.	Arabia.
	Turkey-in-Asia.

Natural features. The natural features of this vast continent are remarkable in many respects. It contains the highest mountains, the most elevated plateaux, and the largest salt-water lakes, in the world. No other continent possesses so many rivers of the first magnitude as Asia does, and its extensive desert tracts are surpassed only by the Great Desert of Africa. Lastly, the islands lying to the east and the south-east of Asia are interesting not only for their large number and their immense total area, but also for the series of volcanoes with which they are studded, and the richness of the vegetation by which they are covered.

The plateau of Pamir, north of the Hindu Kush Mts. in Afghanistan, is the most elevated **table-land** not only in

Asia, but on the globe, and is hence called *the roof of the world*. Its height in many parts exceeds that of Mont Blanc, being 16,000 ft. above the level of the sea. It is from this plateau that the various mountain-chains in Asia diverge in different directions. Thus the *Hindu Kush*, the *Suliman*, the *Himalayas*, the *Kuen Lun Mts.* (with their extensions into China and Indo-China), and the *Thian Shan* (with branches extending into Russia), all start from this central region. The *Elburz** *Mts.* in the north of Persia, the *Caucasus*, and the *Taurus Mts.* (in Turkey) may be looked upon as western extensions of the Hindu Kush. Most Asiatic mountains extend in an east and west direction. The *Himalayas* are the highest mountains in the world; *Mt. Everest*, one of the summits of these mountains, rises to a height of 29,002 ft. above the level of the sea and is the highest peak in the world; there are other summits which reach more than 5 miles above the sea-level. Enclosed between the Himalayas and the Kuen Lun Mts. lies the vast *plateau of Tibet*; it is 13,000 ft. above the sea-level. Other elevated regions in the continent are:—the southern part of India, known as the plateau of the Deccan (2,000 to 4,000 ft.), Asia minor in Turkey (3,000 to 6,000 ft.), Arabia (3,000 to 4,000 ft.), considerable portions of Persia, Afghanistan, and Baluchistan (2,500 to 4,000 ft.), etc.

Among the important rivers the largest are:—the Chinese rivers, the *Yang-tse-kiang* (3,000 m.) and the *Hoang Ho* or the *Yellow River* (2,720 m.); the Indian rivers, the *Indus* (1,800 m.) and the *Ganges* (1,557 m.); and the Turkish river, the *Euphrates* (1,800 m.). The first two rise from the plateau of Tibet, the two Indian rivers from the Himalayas, and the last one from Mt. Ararat (16,916 ft.). Besides these, there are numerous rivers, some of them very large, which flow northwards into the Arctic Ocean. The slope of the continent in different parts is, of course, indicated by the courses taken by the rivers.

The most fertile plains are:—the plain of Upper India watered by the Ganges and the Indus, the plain of Mesopotamia, watered by the lower portion of the Euphrates, the Chinese plain lying about the lower course of the Hoang Ho and the mouth of the Yang-tse-kiang, and the coastal

* This mountain must not be confounded with the peak of the Caucasus Mts. having the same name.

regions of French Indo-China, and Siam. The northern parts of *the great Siberian plain* (which includes a large part of Russia) are practically useless, as they consist merely of immense frozen marshes.

The Caspian Sea and *the Sea of Aral* are the two largest **salt-water lakes** or **inland seas** in the world. No rivers flow out of them, though there are several rivers flowing into each. Both of them are several feet below the sea-level.

The largest **desert** in Asia is *the Gobi* or *Shamo*, of which the western portion is situated between the Thian Shan and the Kuen Lun Mountains. The desert has a great elevation *viz.*, 2,000 to 4,000 ft. above the sea-level. Other large deserts are :—the Arabian desert, the Great Salt Desert in the N. E. of Persia, the desert of Baluchistan, and the Rajputana desert in India.

It has been already observed that the islands in the S. E. and E. of Asia contain a long chain of **volcanoes**, several of them being active.

From the South of Asia project three large peninsulas which in some respects bear a curious resemblance to three in the south of Europe. Thus in both continents numerous islands are clustered round the easternmost peninsula ; further, the central peninsula in both is cut off from the rest of the land by the highest mountain system in the continent, and has a large island lying off its south coast.

Ancient civilization of Asia. Though Asia is at present a great way behind Europe in the race for progress, still it enjoys the glorious privilege of being the continent which saw the dawn of civilization and knowledge.* It was in Asia that the four great religions of the world had their rise, and it was in the same continent that some of the earliest empires in the world were established. Again, Asia is believed by many to have been the original home of the present advanced races throughout the world. The civilized communities of America, Australia, and Africa came originally from Europe, and it is probable that the Europeans in their turn had, in a very remote period, migrated from parts of Asia, probably those lying to the north of the Hindu Kush Mountains.

* But Egypt (a country of Africa) is famous as the seat of the oldest civilization of which any records have been preserved.

The Hindus were probably the first to light the torch of civilization, and the civilization of the Chinese is certainly also of great antiquity ; but it is impossible to fix the period from which the civilization of these two peoples dates. The Hindus had made considerable progress in philosophy, literature, medicine, astronomy, and certain branches of mathematics, even before the dawn of history, and the Chinese have known the use of the mariner's compass and that of paper from a very early period. Coming to historical times, it may be noticed that Babylon (on the Euphrates), and Nineveh (on the Tigris, which flows into the Euphrates) were two of the most splendid cities of the ancient world. Persia had also been a wealthy kingdom till its power was destroyed by the Greeks under Alexander the Great (330 B.C.). After his conquest of Persia, Alexander marched towards India, and actually reached the banks of the Indus. The next interesting events are the birth of Jesus Christ at Jerusalem in Palestine (now a portion of Asiatic Turkey), and the gradual propagation of Christianity westwards into Europe. In 570 A.D. Muhammad was born at Mecca (in Arabia) and he grew up into a great religious reformer. His followers, the Muhammadans, acquired great military prowess, and in the beginning of the eighth century extended their conquests into Northern Africa, and into Europe as far as Spain. They seem to have made creditable progress in algebra, medicine, chemistry, etc. Gautama, the founder of Buddhism, is conjectured to have been born at Kapilabastu in northern India, about 557 B.C.

The advent of Europeans into Asia. The sea-route from Europe to India round the Cape of Good Hope, south of Africa, was discovered by a Portuguese navigator named Vasco de Gama (1498 A. D.). This discovery diverted the trade between Europe and Asia from the merchants of Venice and Genoa to the Portuguese, who ere long founded settlements in certain parts of the western coasts of India. They even reached China and established a factory in the island of Macao (1520 A. D.), at the mouth of the Canton river ; the island has long been a Portuguese possession. The Portuguese were followed by other European nations anxious to trade with Asia—the Spaniards, the Dutch, the Danes, the English, and the French. The Russians found it easier to get into Siberia by crossing the Ural Mts. ; they entered Asia about 1700 A. D. The Danes and the Dutch secured

a footing at the towns of Serampore* and Chinsura,* respectively, but they have sold these settlements to the British. Spain took possession of the Philippine islands (S. E. of Asia) and retained them till recent times, when they have been ceded to the United States of America. The English and the French settled in India early in the seven-teenth century; they had long wars with each other, which resulted in the decline of the French power in India. But the French still retain a few small possessions in India, and have, of late, acquired the territories known as French Cochín China and Tonquin, and established their influence over the native rulers of Anam and Cambodia. The four territories named last make up what is now called French Indo-China. After the decline of the French power in India, the English began to steadily extend their possessions in this country. At the present moment they are supreme not only over nearly the whole of India, but also over the adjacent country of Burma, the Straits Settlements, the island of Ceylon (S. of India), and several other regions. Most of the vast islands lying to the south east of the continent belong to the Dutch. The Russian Empire includes within its limits, Siberia, Trans-Caucasia, and extensive areas in central Asia which are now known as Russian Turkestan; the Ameer of Bokhara and the Khan of Khiva—two Muhammadan rulers in Turkestan—are vassals of Russia.

SEAS, BAYS, AND GULFS.

On the North :—Gulf of Obi

On the N.E. :—Gulf of Anadir, Kamchatka or Behring Sea.

On the East :—Sea of Okhotsk, Gulf of Tartary, Sea of Japan, Yellow Sea, Gulf of Pechili, Chinese Sea, and Gulf of Tonquin.

On the S. E. :—Gulf of Siam.

On the South :—Gulf of Martaban, Bay of Bengal, Gulf of Cambay, Gulf of Oman, Persian Gulf, and Arabian Sea.

On the S. W. :—Gulf of Aden.

On the West :—Red Sea, the Levant, Sea of Marmora, Black Sea, and Caspian Sea.

* These towns are situated a few miles to the north of Calcutta.

ISLANDS.

Liakov	..	...	...	in the Arctic Ocean.
Aleutian Isles, Kurile Isles, Saghalien, the Japanese Archipelago (including Yesso, Nippon, Sikok, Kiusiu, Loochoo Isles, Formosa, Hongkong, Hainan, the Philippines (including Luzon, Mindanao, Palawan)	...	...	...	in the Pacific Ocean
The Islands of the Malay Archipelago (<i>viz</i> , Sumatra, Java, Bali, Lombok, Sumbawa, Timor, Billiton, Banca, Borneo, Labuan, Celebes, Moluccas or Spice Is., etc.)	...	...	...	towards the S. E. of Asia
Nicobar Is., Andaman Is., Cocos Is., Christmas Is., Ceylon, Maldive Is., and Laccadive Is.	...	...	...	in the Indian Ocean.
Bahrein Is.	...	...	...	in the Persian Gulf.
Kuria Muria Is.	...	...	...	off the coast of Arabia.
Perim	..	...	...	in the Red Sea.
Cyprus and Rhodes	...	...	...	in the Mediterranean Sea.

Notes on the Islands.

Liakov and **Saghalien** belong to Russia: the **Aleutian Isles** and the **Philippines** (capital: Manilla—pop. $3\frac{1}{2}$ lacs) to the United States of America; and the **Kurile Isles, Loochoo Isles, and Formosa**, to Japan. **Hainan** is a Chinese possession. Among the islands of the Malay Archipelago, **Sumatra, Java, Bali, Lombok, Billiton, Banca**, and the **Moluccas** belong exclusively to the Dutch; the greater part of **Borneo, Celebes, and Timor** are owned also by them; **Sumbawa** is under Dutch protection; the northern part of the island of Borneo, known as **British North Borneo**, and the British colony of **Labuan** are administered by the British North Borneo Company; the north-western parts of Borneo, including **Sarawak** and **Brunei**, are under British protection;

Sarawak is under an English Rajah, named Sir Charles Johnson Brooke, and Brunei is under a native Sultan. **Hong-kong,* Singa-pore,* Penang,* Christmas Is., Cocos Is., Nicobar Is., Andaman Is., Laccadive Is., Ceylon, and Perim** are all British possessions. **Maldiva Is., Bahrein Is., and Kuria Muria Is.** are under British protection. The **Bahrein Is.** are noted for pearl fisheries. **Cyprus** is governed by the British under a treaty with the Sultan of Turkey. **Rhodes** belongs to Turkey. **Ceylon** (see page 60) is the most important among the Asiatic islands belonging to Great Britain, and **Java** among those belonging to Holland; the population of Java is about 25 millions. The principal towns in Ceylon are :—*Colombo* (pop. over 1½ lacs), *Kandy, Galle, Trincomalee, and Jaffna*. *Colombo*, the seat of the Government, has a well protected harbour. *Trincomalee* is the head-quarters of the British fleet in East Indian waters. The most important town in Java is *Batavia*. (Pop. over 1 lac.)

For remarks on Japan and Formosa, see page 61.

MOUNTAINS.

The Altai, and the Yablonoi

or Stanovoi Mts. ... in Russia.

The Peling and the Nanling... in China.

The Kung-Ling Mts. ... west of China.

The Kuen Lun ... north of Tibet.

The Thian Shan Mts. ... north of Chinese Turkestan.

The Hindu Kush ... in Afghanistan and the Pamir.

The Karakorum and the Himalaya Mts. ... north of India.

The three highest peaks of the Himalayas are :—Mt. Everest or Devdunga (29,002 ft.), the Kanchinjunga (28,815 ft.), and the Dhawalagiri (27,000 ft.).

The Vindhya Hills ... in the middle of India.

The Eastern Ghats ... east of India.

The Western Ghats... parallel to the west coast of India.

The Nilgiri Hills ... south of India.

Elburs Mts. ... in Persia, south of the Caspian Sea.

The highest peak of Elburs Mts. is Demavend (19,000 ft.).

* See pages 54 and 60.

MOUNTAINS—(*Continued*).

Mt. Ararat (16,916 ft.)		in Turkish Armenia.
The Taurus	...	south of Asia Minor.
Lebanon	... ..	in Syria.
Mt. Sinai	... ..	in Arabia, at the head of the Red Sea.

VOLCANOES.

A line of volcanoes begins from Sumatra and Java and extends, through the Japanese and the Aleutian Islands, to Kamchatka Peninsula.

PENINSULAS.

Kamchatka	...	...	...	N. E. of Russia.
Corea	...	...	...	east of Asia.
The Malay Peninsula	...	...	...	S. E. of Asia.
India	...	...	...	south of Asia.
Kattywar and Kutch	...	...	...	west of India.
Arabia	...	...	...	S. W. of Asia.
Asia Minor	...	...	...	west of Turkey.

CAPES.

C. Severo, or the N. E. Cape		north of Russia.
E. Cape	...	N. E. of Russia.
Lopatka	...	S. of Kamchatka.
Cambodia	...	S. E. of Cambodia.
Romania	...	S. E. of the Malay Peninsula.
Comorin	...	south of India.
Rasalhad	...	S. E. of Arabia.
Baba	...	W. of Asia Minor.

ISTHMUSES.

Kraw	...	...	between Siam and the Malay Peninsula.
Suez	...	...	between Asia and Africa.

DESERTS.

Gobi or Shamo	...	between Tibet and Mongolia.
Seistan	...	in the south of Afghanistan.
The Great Salt Desert	...	N. E. of Persia.
The Arabian Desert	...	in Arabia.
The Deserts of Rajputana and Sind	...	in India.

PLATEAUX.

The Pamir	...	in Central Asia, north of the Hindu Kush Mts.
Tibet.		

N. B.—See also page 43.

STRAITS.

Behring Strait	...	connecting the Arctic Ocean with the Pacific, and separating Asia from America.
The Strait of Corea	...	between Japan and Corea.
Macassar Strait	...	between Celebes and Borneo islands.
Strait of Malacca	...	between Sumatra and the Malay Peninsula.
Palk Strait	...	between India and Ceylon.
Ormuz	...	between the Persian Gulf and the Arabian Sea.
Strait of Babelmandeb	...	between the Arabian Sea and the Red Sea.

LAKES.

The Caspian Sea*	...	north of Persia.
The Sea of Aral* and L. Balkash	...	in the S. W. of Siberia.
Baikal	...	south of Siberia.
Lobnor	...	in Chinese Turkistan.

See page 44.

LAKES—(Continued).

Kokonor	...	... N. W. of China.
Paltee, Tengrinor, Mansarawar	and ...	in Tibet.
Chilka and Pulicat	...	on the east coast of India.
Colair	...	east of India.
Rann of Kutch	...	west of India.
Urumiyah	...	north of Persia.
Van	...	in Turkish Armenia.
Dead Sea	...	In Palestine (in Turkey).

RIVERS.

<i>Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Ural (<i>See Europe, p. 25.</i>)			
{ Obi (2,600 m.)	... Altai Mts.	Russia	Arctic Ocean.
{ with its tributary			
{ the Irtish	... Do.	Do.	
{ Yenisi (3,400 m.)	Do.	Do.	Do.
{ with its tributary			
{ the Angora	... L. Baikal	Do.	
Lena (2,400 m.)	... Do.	Do.	Do.
Amoor or Sagha- lien (2,900 m.)	A. Yablonoi Mts.	Russia and Man- churia	G. of Tartary.
Peiho		China	G. of Pechili.
H. Ho or Yellow River (2,720 m.)	... Kuen Lun Mts.	Do.	Do.
Yang-tse-kiang (3,000 m.)	... Kuen Lun Mts.	Tibet, China	Pacific Ocean.

<i>Rivers.</i>	<i>Principal towns on or near the banks.</i>
Obi ...	... Tomsk.
Irtish ...	... Tobolsk, Omsk.
Angora ...	... Irkutsk.
Lena ...	... Yakutsk.
Peiho ...	... Peking.
Yang-tse-kiang	... Hankow, Nanking.

RIVERS—(*Continued*).

<i>Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Canton or Sikiang	... Nanling Mts.	China	Pacific Ocean.
Mekong	... Kuen Lun Mts.	Tibet and China, then forms the eastern boundary of Burma and Siam, and lastly flows through Fr. Indo-China.	Chinese Sea.
Meinam	... China	China, Burma, Siam.	Gulf of Siam.
Salwyn	... Tibet	Tibet. Burma	G. of Martaban.
Irawady	... Upper Burma	Burma	Do.*
Brahmaputra with its tributary the Teesta	Tibet ... Mt. Kanchinjunga	Tibet, India India	Bay of Bengal.
Indus (1,800 m.)	... Tibet	India	Arabian Sea.
Ganges (1,557 m.)	Himalaya Mts.	India	Bay of Bengal.

<i>Rivers.</i>	<i>Principal towns on or near the banks.</i>
Canton or Sikiang	... Canton.
Meinam	... Bangkok.
Salwyn	... Moulmein.
Irawady	... Bhamo, Mandalay, Amarapura, Ava, Prome, Rangoon.
Brahmaputra	... Dibrugarh, Gauhati, Goalpara, Serajunge.
Indus	... Haidarabad.
Ganges	... Hurdwar, Farukhabad, Cawnpore, Allahabad, Mirzapur, Benares, Ghazipur, Dinapur, Bakkipur, Patna, Monghyr, Bhagulpur, Rajmahal, Rampore, Beaulia, Patna.

Its most important *branch* is the **Hooghly** or the **Bagiruthee** (also called the **Ganges**). Its breaks off from the Ganges about 25 miles above the town of Moorshedabad, and flows into the Bay of Bengal. The principal cities and towns on this branch are :—Moorshedabad, Berhampore, Cutwa, Naddea, Hooghly, Chandernagore, Calcutta, and Diamond Harbour.

The main river, from the place where the Hooghly branches off to the sea, is usually called the Padma.

The most important *tributary* of the Ganges is the **Jumna** which rises from the Himalaya Mts., and flows into the Ganges at Allahabad.

The important cities and towns on or near the **Jumna** are :—Delhi, Brindaban, Muttra, Agra, Etawah, and Allahabad.

RIVERS—(*Continued*).

<i>Name</i>	<i>rises from</i>	<i>flows through</i>	<i>falls into</i>
Nerbudda ...	middle of India	India	Arabian Sea.
Tapti ...	Do.	Do.	Do.
Mahanuddy ...	Do.	Do.	Bay of Bengal.
Godavari ...	The Western Ghats	Do.	Do.
Krishna ...	Do.	Do.	Do.
Kaveri ...	Do.	Do.	Do.
Syr-Daria, or Jaxartes ...	Thian Shan Mts.	Russia	Sea of Aral.
Oxus or Amu Daria ...	Hindu Kush Mts.	Russian Turkestan	Do.
Euphrates (1,800 m.) ...	Mts. of Turkish Armenia	Turkey	Persian Gulf.
Tigris ...	Do.	Do.	R. Euphrates.
Jordan ...	Mt. Anti-Lebanon, in Syria (in Turkey)	Do.	Dead Sea.

POLITICAL DIVISIONS WITH THEIR CHIEF CITIES AND TOWNS.

N. B.—The capitals are given in italics.

- (1) **Asiatic Russia** ... *Tobolsk, Irkutsk, Tiflis.*
 including
 Siberia ... *Tobolsk, Irkutsk, Vladivostock.*
 Russian Turkestan ... Samarkand, Merv.
 Trans-Caucasia ... *Tiflis.*
 and the two dependencies of
 Bokhara and Khiva ... Bokhara, Khiva.

<i>Rivers.</i>	<i>Principal towns on or near the banks.</i>
Nerbudda ...	... Hoshangabad, Broach.
Tapti ...	... Surat.
Mahanuddy ...	... Cuttack.
Godavari ...	... Rajamahendri.
Kaveri ...	... Tanjore.
Euphrates ...	... Bussorah.
Tigris ...	... Bagdad.

- (2) **The Chinese Empire** ... *Pekin.*
 including
 China Proper ... *Pekin, Tientsin, Hankow, Nanking, Shanghai, Ningpo, Foochoo, Amoy, Canton.*
 and its dependencies
 Eastern or Chinese Turkestan ... *Kashgar, Yarkand.*
 Mongolia ... *Maimachin.*
 Manchuria ... *Moukden, Port Arthur.*
 Jungaria ...
 Tibet ... *Lahssa.*
- (3) **Corea** ... *Seoul.*
- (4) **Japan Islands** ... *Tokio or Yedo, Osaka, Yokohama, Nagasaki, Kioto.*
- (5) **French Indo-China** ... *Saigon.*
 including
 French Cochinchina *Saigon.*
 Tonquin ... *Hanoi.*
 and the French dependencies of
 Anam ... *Hue.*
 Cambodia
- (6) **The Straits Settlements*** *Singapore, George Town.*
 comprising **Malacca and Province Wellesley** (both of which are parts of the **Malay Peninsula**), the islands of **Singapore** and **Penang**, and certain small dependencies.†
- (7) **Slam** ... *Bangkok (Pop. 6 lacs.)*
- (8) **India, consisting of**
 (a) **British India** ... *Calcutta, Bombay, Madras, Lucknow, Benares, Delhi, Cawnpur, Lahore, Allahabad, Agra, Patna, Poona.*
 with
 Burma ... *Rangoon, Mandalay, Moulmein, Ava, Pegu.*

* Cocos Is. and Christmas Is. are administered by the Government of the Straits Settlements.

† Perak, Johor, Selangor, Pahang, etc.

- (b) A large number of native states under British protection ... Haidarabad, Mysore, etc.
- (c) The independent native states of
- | | | | |
|--------|-----|-----|-------------------|
| Nepal | ... | ... | <i>Khatmandu.</i> |
| Bhutan | ... | ... | <i>Punakh.</i> |
- (d) The French possessions ... *Pondicherry.*
- (e) The Portuguese possessions *Goa.*
- (9) **Afghanistan** ... *Cabul, Ghazni, Candahar, Herat.*
- (10) **Baluchistan** ... *Kelat.*
- (11) **Persia** ... *Teheran, Ispahan, Bushire, Shiraz, Bandar Abbas.*
- (12) **Arabia** ... *Mecca, Medina, Muscat, Aden.*
- (13) **Turkey-in-Asia**
 (including Asia Minor,
 Turkish Armenia, Syria,
 Palestine, etc.) ... *Smyrna (Pop. 2 lacs), Damascus, Bagdad, Bussorah, Aleppo, Jerusalem.*

ONS. For other large Islands not given in the above list, see pp. 47-48.

NOTES ON THE CHIEF CITIES AND TOWNS.

In Russia :—

- | | | |
|---------------------|-------|---|
| Tobolsk | • ... | is the capital of Western Siberia. |
| Irkutsk | ... | is the capital of Eastern Siberia. |
| Vladivostock | ... | is the eastern terminus of the Siberian railway, and a good port. |
| Tiflis | ... | is the capital of Trans-Caucasia. (Pop. over 1½ lacs.) |
| Bokhara | ... | is the chief seat of trade in Central Asia. |

In China :—

- | | | |
|-----------------------------|-----|--|
| Pekin (on the Peiho) | ... | is one of the oldest and most populous cities of the world. (Pop. supposed to exceed 1 million.) |
|-----------------------------|-----|--|

- Tientsin** is an important port open to foreign trade since 1858 A.D. The river Peiho, on which it stands, becomes frozen in winter. It is a very populous city. (Pop. supposed to be between 7 and 9 lacs.)
- Hankow** (on the Yang-tse-kiang).. is a treaty port, and is said to contain a population of 8 lacs.
- Nanking** ... is the chief seat of learning in China ; manufactures "nankeen" cloth.
- Shanghai** ... is a treaty port, open to foreign trade since 1842 A.D. ; it is now a seat of extensive commerce. (Pop. between 3½ and 6 lacs.)
- Ningpo, Foo-choo, Amoy** ... are treaty ports. Foochoo is believed to contain a population of 6½ lacs.
- Canton** ... is one of the largest cities in the world ; its population is estimated at between 8 and 16 lacs.
- Port Arthur** ... is a fortified harbour, situated in the Liao Tong Peninsula (N. W. of Corea). It is now under Russian occupation.

In Japan :—

- Tokio** ... is one of the largest and most populous cities in the world ; it possesses an excellent harbour and is one of the most advanced cities in Asia. (Pop. over 14 lacs.)
- Osaka** ... is the first commercial city in Japan. (Pop. over 8 lacs.)
- Yokohama** ... is the chief port for foreign trade in Japan. (Pop. nearly 2 lacs.)
- Nagasaki** ... has excellent dockyards.
- Kioto** ... was the former capital of the Japanese Empire. (Pop. over 3½ lacs.)

In the Straits Settlements :—

- Singapore** ... is the most important commercial city in the S. E. of Asia ; it is a coaling station for steamers, and is well fortified.

In India :—

- Calcutta** (on the Hooghly) ... is the capital of British India ; it is a large port and commercial town, with many fine buildings. (Pop. 847,796.)

- Bombay** is a large sea-port with an excellent harbour ; it is noted for cotton manufacture. (Pop. 770,843.)
- Madras** ... is a large seaport with a population of over five lacs.
- Luoknow (on the Goomtee)** ... a large city famous for its gallant defence by Sir Henry Havelock during the Sepoy Mutiny of 1857 A.D. (Pop. over 2½ lacs.)
- Benares (on the Ganges)** ... is a sacred place of the Hindus, and is the chief seat for the cultivation of Sanskrit. (Pop. over 2 lacs.)
- Delhi (on the Jumna)** ... was the capital of the Moghul Emperors. "The splendid fort of the Emperor Humayun, which is two miles from the city ; the stately Juma Musjid situated in the city itself ; the Kutab Mosque, ten miles south of the city, with its graceful colonnade of beautifully sculptured Hindu pillars ; and the adjoining Kutab Minar, the tallest minaret or pillar in the world, being 238 ft. in height, are among what have been fitly termed 'the many architectural glories of Delhi.' The Sepoy Mutiny and the siege of Delhi in 1857 A.D. are the most remarkable events in the history of that city in modern times." Delhi is now a place of great trade, especially in wheat and other grains. (Pop. over 2 lacs.)
- Cawnpur (on the Ganges)** ... is notorious for the cruel massacre of European ladies and children during the Sepoy Mutiny. It is now a very important centre of trade, especially in wheat, and has a large number of factories—woollen, cotton, leather, etc. (Pop. nearly 2 lacs.)
- Lahore (on the Ravi—a tributary of the Indus)** ... is the capital of the province of Punjab (Pop. 120,058.)

Allahabad (situated at the confluence of the Ganges and the Jumna) ...

is a holy city of the Hindus, and is the capital of the United Provinces of Agra and Oudh. (Pop. 175,748.)

Agra (on the Jumna)

is celebrated for the Mausoleum of the Taj Mahal with its beautiful domes and gardens. This 'dream in marble' was erected by the Emperor Shah Jehan as the tomb of his wife who is known in history as Mumtaz-i-Mahal. Built of the purest white marble, the mausoleum stands on a raised platform, at each corner of which is a tall and graceful minaret. In regard to colour and design the interior of the Taj may rank first in the world for purely decorative workmanship; while the perfect symmetry of its exterior and the aerial grace of its domes and minarets impress the mind of the beholder in a manner never to be forgotten." (Pop. nearly 2 lacs.)

Patna (on the Ganges)

is the centre of very large trade, especially in grain and salt, and contains an opium factory of the Government of Bengal. (Pop. 135,172.)

Poona

is a large military station; it was formerly the chief seat of the Mahratta power in India. (Pop. 111,385.)

In Burma:—

Rangoon

is the capital of Burma, which is now a province of British India. It is an important port with large trade. (Pop. 232,326.)

Moulmein

has large trade in rice and teak wood.

In Persia:—

Ispahan

... was formerly the capital of Persia.

Bushire and Bandar Abbas ...

are the chief ports of Persia.

In Arabia :—

Mecca	is the birth place of Muhammad (571 A.D.).
Medina	contains the tomb of Muhammad.
Aden	is a British possession, and is used as a coaling station for ships. It is subject to the Bombay Government.
Muscat	is the capital of the State of Oman, and is a seat of trade. Its chief exports are dates.

In Turkey-in-Asia :

Damascus	is one of the oldest cities in the world ; it is a great centre of trade, exporting grain, cotton, silk, wool, fruit, etc. ; it is noted also for its steel. (Pop. 140,500.)
Jerusalem	is the birth place of Jesus Christ.

NOTES ON THE POLITICAL DIVISIONS.

Population. The total population of Asia is about 800 millions. The following table gives the area, population, and number of inhabitants per sq. mile, in the most densely peopled parts of Asia.

Territories.	Area in sq. miles.	Population.	Average No. of persons per sq. mile.
China , (proper) ¹	1,353,350	383,000,000 (by estimate)	283
Japanese Islands ...	147,655	43,763,150	296
India , with Burma ...	1,871,058	about 297,750,000	160
Ceylon ...	25,333	3,576,990	141
Corea ...	82,000	estimated at from 8 to 16 millions.	between 98 and 195

Siberia, Arabia, Persia, and Afghanistan are very thinly peopled ; on an average there is only 1 person per sq. mile in Siberia, there are 3 in Arabia, 14 in Persia, and 15 in

Afghanistan. The Trans-Caucasian provinces* of the Russian Empire are much more densely inhabited than Siberia. The Islands of the Malay Archipelago and the Philippine Islands † are well populated.

India and China. It will be remembered (see p. 15) that the population of the world is estimated at about 1,500 millions, of which Europe has about 393 millions. From the table given above it will be seen that *India and China are the abodes of nearly half of the human race*, and that China alone contains nearly as many inhabitants as the whole of Europe. Some idea of the fertility of these two countries will be formed from the facts that they are not only capable of supporting their own vast population, but India exports each year enormous quantities of food stuffs and other agricultural products, and China very large quantities of excellent tea. The commerce of India has reached a highly developed condition, under the fostering care of its rulers, but that of China is still in its infancy, except in certain special lines. Under the British administration, India enjoys peace ; education is rapidly advancing, mines are being worked, new branches of agriculture (*e.g.* tea, jute, etc.) have been successfully introduced, manufacturing industries are slowly but steadily making their way, and the country is intersected by railway lines, of which the total length exceeds 24,700 miles. For these results we are indebted to British statesmanship, and for many of them to British enterprise and British capital also. India is a *dependency* of the United Kingdom ; 'it is ruled by a Viceroy ‡ representing the King of the United Kingdom who is also the **Emperor of India**. Parts of Burma were annexed to India in 1826 and 1852 A.D., and the whole of it became a province of India in 1886 A.D.

Ceylon, the Straits Settlements, and Hong-kong. The island of Ceylon was conquered by the British in 1815 A.D. ; it is in a flourishing condition like India (see p. 48). Ceylon is now separate in administration from India, and is ruled by a Governor acting under the orders of the Secretary of State for the Colonies ; colonies which are governed under this system are called **Crown Colonies**. The Straits Settlements

* Density of population, 45.

† Density of population, about 60.

‡ The Viceroy acts under the orders of the Secretary of State for India.

and the island of Hong-kong are also Crown Colonies of Great Britain.

The Chinese Empire. This includes an area of over 4 millions of sq. miles, and its total population is about 400 millions. The Chinese are a patient and industrious people, but are not progressive and are addicted to opium-smoking; much of this opium is supplied by India, where the cultivation of opium is a monopoly of the Government. They pay great reverence to their ancestors, living and dead. The system of government is not satisfactory, the Emperor being powerless to check his high officials, called *mandarins*, who are very often corrupt. Outside China Proper, the power of the Emperor is merely nominal, and there is hardly any system of government.

Corea. Kings of Corea formerly acknowledged the suzerainty (*i.e.*, overlordship) of the Chinese Emperor; since 1895 A.D. Corea, with the assistance of Japan, has become independent. The present ruler of Corea assumed the title of Emperor in 1897 A.D.

Japan, Formosa. These islands are about as densely populated as China Proper. Although belonging to the same race as the Chinese, the Japanese have, of late, proved themselves to be the most progressive people in Asia. Numbers of students are sent at the public expense to be educated in Europe and America. The University of Tokio has acquired a great reputation. Not only is liberal education in a highly efficient condition, but mining industries, arts, and manufactures are also greatly developed. In military efficiency and personal bravery the Japanese made themselves conspicuous in the war which Japan lately waged against China, as also in the recent expedition sent to punish the "boxer" movement. Japan is some times called "the Great Britain of the Pacific," and its people are styled the "Anglo-Saxons of the East." The Emperor of Japan is known as the *Mikado*. Japan obtained from China the island of *Formosa*, at the close of the war between the two Empires (1895 A.D.).

Russia. The Russian Empire at present includes Siberia, Trans-Caucasia, and extensive areas in Central Asia, now known as Russian Turkestan. The *Amir of Bokhara* and the *Khan of Khiva*—two Muhammadan chiefs in Turkestan—are vassals of Russia. Russia is now in possession of

Port Arthur and Talienwan, in the *Leao Tong* peninsula (N. W. of Corea) in China. She has recently completed a long line of railway connecting St Petersburg with the Pacific coast. This line passes through the towns of Samara (in Russia-in-Europe), and Omsk, Tomsk, Irkutsk (in Asiatic Russia), and terminates at Vladivostock on the Pacific coast. Some of the towns in Turkestan *e.g.*, Samarkand, Bokhara, Merv, etc. have also been connected by rail with the Caspian Sea; the line proceeds from Baku on the western coast of the Caspian, through Tiflis, to the town of Batoum on the Black Sea. From Merv a branch line has been extended to Khusk on the Afghan frontier. Many of the tribes in Siberia and Russian Turkestan lead a nomadic life *i.e.*, they rove from place to place without having settled homes.

Persia, Afghanistan, and Baluchistan. The rulers of these countries, are Muhammadans. The ruler of Persia is styled **the Shah**, that of Afghanistan, **the Ameer**, and the leading chief of Baluchistan is known as the **Khan of Kelat**. Baluchistan is now a dependency of British India.

Arabia is not ruled by a single king; the Sultan of Turkey is nominally supreme over the Red Sea coast; there are numerous Muhammadan chiefs, among whom the *Sultan of Muscat* is the most famous. The people are often addicted to plunder.

Siam, the territories included under the present **French Indo-China, Burma, and the Straits Settlements**, taken together, are sometimes called **Further India or Indo-China**.

FOREIGN POSSESSIONS IN ASIA.

British possessions :—The greater part of India (with Burma and British Baluchistan), the Laccadive Islands, the Andaman and Nicobar Islands, Ceylon, the Straits Settlements (including Cocos Is. and Christmas Is.), Labuan, (British) Borneo, Hong-kong, Aden, Perim, and Cyprus.*

A large part of India, Baluchistan, the Maldivé Islands, Kuria Muria Is., the Baherin Islands, a part of Borneo,

* See p. 48.

and a few small states in the Malay Peninsula, are under British protection.

Wei-Hai-Wei (in the N. E. of China) has been leased by China to Great Britain for as long a period as Russia shall remain in possession of Port Arthur. (See p. 62.)

German possession :—In 1898 A.D. Germany obtained from China a 99 years' lease of the town of Kiao-Chau, on the north-eastern coast of China.

French possessions :—French Cochinchina, Tonquin ; also, Pondicherry, Chandernagore, Mahe, Karikal, Yanam—in India. Anam and Cambodia are dependencies of France.

In 1898 A.D. China granted to the French a lease of the Bay of Kwang chau-Wan, opposite the Island of Hainan.

Dutch possessions :—Sumatra, Java, the greater part of Borneo and Celebes, Moluccas (or Spice Islands), etc. (See p. 47.)

Russian possessions :—See pages 47, 61, and 62.

Portuguese possessions :—Goa, Daman, Diu—in India, the island of Macao, and the northern part of Timor.

Possessions of the United States of America :—The Philippine Islands (ceded by Spain in December, 1898 A.D.) and the Aleutian Islands.*

Forests. Asia may be divided into two regions each having its own characteristic forest-trees. The first comprises India, the Himalayas (up to an elevation of 5,000 ft.), Indo-China, and the south-eastern islands ; the second includes the higher parts of the Himalayas (up to an elevation of 9,000 ft.), the southern parts of Siberia, Japan, and the countries situated to the west of India. In the former the *sal*, *teak*, *sisu*, *toon*, *ebony*, *sandal-wood*, and *banyan* and other *fig* trees are usually found. In the latter regions European trees and those allied to them generally prevail. The *sal* trees of Nepal forests, and the *teak*, *sandal-wood*, and *ebony* of Burma are famous. The middle regions of the Himalayas are covered with *pinus*, *deodars*, and *sycamores* ; the Siberian forests with the *pine*, *beech*, *larch*, *fir*, and *oak* ; and the Japanese forests with the *fir*, *pine*, and *larch*. *Cedars* are found in Syria, *sycamores* in Asia Minor, and the *cypress*, *oak*, *chestnut*, *birch*, and *pine* in Afghanistan, Persia, and the southern parts of Turkey.

* The Aleutian Islands may be regarded as North American Islands (See North America—under Alaska.)

Agriculture. This forms the chief occupation of the Asiatic people. The southern parts of Asia are very fertile, and are characterized by a richness of vegetation and a variety of products unsurpassed in any other part of the world. These regions include India, Ceylon, Burma, Siam, the Straits Settlements, French Indo-China, China, and some of the south-eastern islands. Enormous quantities of *rice*, which forms the principal food-crop of a large portion of the population, are raised on these tracts. Other important food-crops of the continent are :—*wheat*, *barley*, *oats*, *pulses*, *maize* or *Indian corn*, and *millets* (*sorghum* or ‘*juar*’, etc.), the two last being consumed chiefly by the poorer classes. India is one of the four largest wheat growing countries in the world. Besides the food crops, the other products of agriculture are numerous, and many of them are of great value. India is the third *cotton* producing country in the world. One particular province of India (*viz.*, Bengal) supplies the whole of the *jute* required by the manufacturers of Great Britain and other European countries. *Manilla hemp*; *coffee* of Mocha (in Arabia), Turkey, Ceylon, southern India, and Java; the *tea* produced in the southern and western parts of China, and in Japan, India, Ceylon, and Java; *tobacco leaves* of Manilla and Burma; Persian, Turkish, and Indian *opium*; Indian *indigo* (to which indigo artificially produced in Baden and other states in Germany, is now a formidable rival); *spices* (pepper, cloves, cinnamon, nutmegs, cardamum, &c.) for which the Moluccas and other islands of the Malay Archipelago have long been famous; and the enormous quantities of *oil-seeds** raised in India—are all very valuable articles of export from the continent. *Sugar-cane* is cultivated very largely in India, the Straits Settlements, Java, French Indo-China, the Philippines, and Formosa.

The above list by no means exhausts the interesting vegetable products of Asia. Afghanistan, Persia, and Turkey are famous for various sorts of *fruits*—pomegranates, grapes, raisins, almonds, dates, apricots, &c. Arabia is noted for *dates*, India for *mangoes* and *plantains*, and Siam for durian, mangoes, and the delicious *mangosteen*. Besides the above, the following deserve special mention :—*India rubber* (Borneo, the Straits Settlements, India); *guttapercha*, *sago*, *tapioca*, and *rattans*

* *viz.*, rape-seed, linseed, mustard, castor, gingelly or ‘til.’

(the Straits Settlements, Borneo); *gums* (Arabia, Persia, Turkey, Borneo, the Straits Settlements); *bamboo* (India, Indo-China, China, &c.); *camphor* (China, Japan, Formosa); *assafetida* (Afghanistan); *cinchona* (India, Java, Ceylon); and *paper-fibres* (India, China, Japan).

Distribution of the principal agricultural products.

Rice	...	...	India (with Burma), China, Ceylon, the Straits Settlements, Siam, Java, French Indo-China; also, Russian Turkestan, Persia, Japan, Corea, Borneo, Afghanistan, etc.
Wheat and Barley	...	...	India, Persia, Turkey, Siberia, Corea, northern parts of China, Cyprus, Japan, Afghanistan, Baluchistan.
Oats	...	...	Turkestan, India, Corea, etc.
Maize or Indian corn			India, Turkey, Japan, Java, French Indo-China, Afghanistan, etc.
Millets	...		Throughout the continent.
Oil-seeds	...	...	India, Siam, Japan, Tonquin, etc.
Cotton	...	...	India, French Indo-China, Persia, Cyprus, southern parts of China, Siam, Russian Turkestan, Java.
Jute	...	.	India (Bengal).
Hemp	...	...	Philippines, Andaman Is., Siam, etc.
Coffee	...	.	Arabia, Turkey, Ceylon, southern India, Java, the Straits Settlements, Philippines, Cambodia, Anam, Borneo, Siam.
Tea	..	..	India, China (W. and S.), Java, Ceylon, Japan, Anam, Andaman Is.
Cocoa	...	• ...	Ceylon.
Tobacco	...	...	Philippines, Burma, Japan, India, Java, the Straits Settlements, Borneo, French Indo-China, Corea, Persia, Siam, Baluchistan, Afghanistan, Trans-Caucasia.
Opium	...	...	India, Persia, Turkey, China.
Indigo	...	...	India, Cambodia, Philippines, Java, southern parts of China.
Spices	...*	...	Islands of the Malay Archipelago, the Straits Settlements, Ceylon, French Indo-China, Siam.
Sugar-cane		...	Java, India, Philippines, the Straits Settlements, French Indo-China, Formosa, southern parts of China, Japan

Coco-nuts	...	Ceylon, India, Borneo, Maldivé Is., Laccadive Is., Andaman Is., Nicobar Is., Cocos Is.
The Vine	...	Trans-Caucasia, Turkey, Persia, Afghanistan, Japan, Cyprus, etc.
Other fruits	...	Afghanistan, Persia, Turkey, Cyprus, Arabia, Baluchistan, India, Siam, the Straits Settlements.
India-rubber	...	Malay Archipelago (Borneo, etc.), the Straits Settlements, India, Burma, Ceylon, Siam, French Indo-China.
Guttapercha, Sago, Tapioca, & Rattans		Borneo, the Straits Settlements.
Bamboo	...	India, Indo-China, China, etc.
Gums	...	Arabia, Persia, Turkey, the Straits Settlements, Borneo, etc.
Camphor	...	China, Japan, Formosa.
Assafetida	...	Afghanistan.
Cinchona	...	India, Java, Ceylon.
Paper-fibres	...	India, China, Japan, etc.

Minerals. The mineral wealth of Asia has been but partially explored, but it is believed to be immense. Japan is the only state where the mining industry has been properly developed. The *copper* mines of Japan are of great value; their out-put is exceeded only by that of the mines of the United States of America and of the Iberian Peninsula. The *tin* mines of Perak (in the Straits Settlements), Banca, and Billiton are the most productive mines of their kind in the world. The *coal* mines of India are almost inexhaustible, and are being systematically worked. The mineral wealth of China and Corea are supposed to be vast. China is probably one of the first coal-countries in the world; the supply of iron and copper also is plentiful.

Distribution of the principal minerals.

Iron	...	Japan, India, Russia, Tonquin, China, Manchuria, Corea, Persia, Siam.
Coal	...	India, Japan, Tonquin, Formosa, China, Corea, Borneo, Java, Sumatra, Persia, Siam.
Tin	...	The Straits Settlements (Perak, Selangor) Banca, Billiton, China, Siam, Russia.

Copper ...	... Japan, Tonquin, Russia, China, Corea, Persia, Afghanistan.
Plumbago ...	... Ceylon, India, etc. *
Lead ...	... Russia, China, Persia, Japan, Afghanistan.
Gold ...	... China, India, Japan, Russia, Corea, Luzon, Borneo, Siam, the Straits Settlements.
Silver ...	... Japan, Russia, Borneo, China.
Mercury ...	... Russia, Borneo, etc.
Mica ...	... India (Chutia Nagpur and Southern India).
Manganese ...	... India, Siam.
Petroleum ...	... Baku (in Trans-Caucasia), Sumatra, Japan, Burma, Java, Persia, Borneo.
Sulphur ...	... Japan.
Salt ...	... India, Russia, Persia, Arabia, etc.
Platinum ...	... Russia.
Diamonds ...	... Borneo, Siam.
Rubies ...	... Burma, Siam.
Marbles ...	... India (N.W.).
Borax ...	... Tibet.

Zoology. With the exception of pouched animals, Asia contains specimens of almost all the families of the animal kingdom. The *elephant* and the *rhinoceros* are found in India and Indo-China; the *lion* is met with in the western part of upper India and in Baluchistan, Persia, and Mesopotamia, and the *tiger* in India, Tibet, and Central Asia. The *yak* is a native of Tibet, and is of great use to the people of that country. The *panther* is common in Arabia, the *hyæna* in Persia, and the *wolf* over the northern and western plains. The *white* or *polar bear* and the *reindeer* (which is a domesticated animal) are peculiar to the extreme north. Numerous fur-bearing animals—the *sable*, *ermine*, etc., occur in the middle regions of Siberia. *Camels* are plentiful in the Arabian deserts and in Russian Turkestan. Different species of *deer* and *antelopes* abound in the Steppes* of Russia, as also in India, Manchuria, and some of the western countries. India, Indo-China, and the Malayan Archipelago are inhabited by various species of *monkeys*. The *Angora goat*

* These are rough, treeless plains extending N. E. from the region between the Aral and Caspian Seas.

of Asia Minor and the *Cashmere goat* of India are famous for their wool. The *horses* of Arabia, Afghanistan, and Kattywar (in India), and the *ponies* of Burma are considered to be very superior animals. Among birds, the *ostrich* is found in Arabia, the *peacock* and the *pheasant* are natives of India, while the islands of the Malayan Archipelago are the home of the *cassowary*.

Occupation of the people, manufactures. Agriculture forms the chief occupation of the vast majority of the population; but in Tibet and Turkestan, large numbers of people are employed in the rearing of the yak and other oxen. Silkworms are reared in China, Turkey, Trans-Caucasia, the Caspian Provinces of Persia, and Turkestan; the out-turn of silk in these territories is very large. The silk-industry of Japan, India, Cyprus, Afghanistan, and Tonquin is also of sufficient importance to deserve mention. The Bahrein Islands, the coasts of the Persian Gulf, and those of Ceylon and Borneo are famous for their pearl-fishery. Weaving is generally carried on by manual labour, and with considerable dexterity, in some countries; the inimitable shawls of Cashmere and the exquisitely designed carpets of Persia are still prized all over the world, though the days of the fine muslins of Dacca are gone most probably for ever. In India some important manufactures are now carried on by means of machinery worked by steam-power. The chief among these are:—Cotton, woollen, jute, and paper. Mills for refining sugar and oils, and iron-foundries have also been started in the country, with steam as the motive power. Japan is the most progressive country in the continent; ship-building, paper-making, manufactures of matches, glass, soaps, drugs and chemicals, cement, ropes, cotton, silk, porcelain and earthen-ware, are important industries of these islands; the Japanese have recently started the manufacture of locomotives.

Commerce. Agricultural products form the chief exports from Asia. The most important among the articles exported to the other continents are:—Rice, tea, jute (and its manufactures), wheat, oils, and oil-seeds, sugar (chiefly from Java), coffee, cotton, hemp, wood and timber, guttapercha, India-rubber, gums, spices, indigo, opium, tobacco, cinchona, camphor, lac; hides and skins, silks (raw and manufactured), wool, pearls; petroleum, tin, gold, copper, and saltpetre. The United Kingdom, Austria-Hungary, Germany, Belgium, and

France are the states of Europe from which manufactured articles are heavily imported into Asia ; a list of such articles has been given above (*see* pp. 39-40). India has important commercial relations with China, Japan, the Straits Settlements, Ceylon, Trans-Caucasia, and with certain countries of Africa. Edible bird's nests are exported in large quantities from Borneo to China.

Climate. Asia may be divided into five regions in respect of climate. The first includes most of Siberia ; the second, the tablelands in middle Asia (N. of the Himalayas), together with the adjoining territories on the east and west ; the third comprises India and Further India ; the fourth, Arabia and Persia (except its northern portion) ; and the last, Turkey, the northern parts of Persia, Afghanistan, etc. The first region has a long winter of extreme severity ; the ground in various parts is permanently frozen to a great depth, and the rivers are free from ice for only short periods of the year ; the climate is milder in the south-western part of this region. The second region is characterized by excessive dryness and extremes of temperature ; the enormous heights of the Himalayas prevent the vapour rising from the Indian Ocean from reaching the central part of this region, and hence this part is rainless. India and Further India are marked generally by great heat in summer, and heavy rainfall at certain periods of the year. The fourth region is extremely hot, and is almost rainless. The climate of Turkey, etc. is European in character, being similar to that of Turkey-in-Europe.

Races and Religions—*see* Chapter XI.

CHAPTER V.

AFRICA.

Boundaries. Africa is bounded on the north by the Mediterranean Sea ; on the west by the Atlantic Ocean ; on the south by the Great Southern Ocean ; and on the east by the Indian Ocean, the Red Sea, and the Isthmus of Suez.

Extent and Population. The most northerly point of Africa is *C. Bon*, and its most southerly point *C. Agulhas*, between which the distance is about 5,000 miles ; while between *C. Guardafui* on the east, and *C. Verde* on the west, the distance is about 4,500 miles. Africa is the second largest continent on the globe, and includes nearly a quarter of its entire land-surface. The population is believed to exceed 205 millions.

Natural features. Africa is an enormous peninsula, joined to Asia by the *Isthmus of Suez*. Although it is washed by three vast oceans, yet its northern and north-eastern parts are easily accessible from Europe and Asia, across the Mediterranean Sea, and the Red Sea and the Isthmus of Suez respectively ; at the *Straits of Gibraltar*, Africa is indeed very close to Europe, and at the *Straits of Babelmandeb* to Asia, whilst the Isthmus of Suez forms a connecting link between Africa and Asia. But the northern parts of Africa stand in great isolation from its central and southern parts, the immense and almost impassable *desert of Sahara* coming in between them. The Sahara is a table-land of moderate elevations, containing a number of *oases*, and is intersected by several hills ; there are huge sand-hills in its western and eastern extremities known as the *Igidi* or *Gidi Desert* and the *Libyan Desert*, respectively. The Sahara may be looked upon as the western extension of the deserts of Asia. It should be noticed that there are considerable desert tracts between the Red Sea and the basin of the great African river, *the Nile* (4,100 miles in length). Had it not been for the Nile, whose annual inundation enriches the land on both sides of the river, the vast deserts of Africa would have extended without interruption to the brink of the Red Sea. There are a few other African rivers of great length,

with extensive basins; the *Congo* is 3,000 miles long, the *Niger* 2,500 miles, and the *Zambesi* 2,000 miles. One peculiarity of the great rivers of Africa is that a large number of **cataracts** occur in their course, and hence they are navigable with great difficulty. In the eastern parts of Africa there are three **vast lakes**; these are the *Victoria Nyanza*, the *Zanganyika*, and the *Nyassa*. In no other part of the world, except North America, do so many large lakes occur. The *Victoria Nyanza* is the largest of the African lakes; its elevation above sea-level is nearly 3,800 ft., and its area is about 27,000 sq. miles. The *Tchad* or *Chad* is another large lake, situated to the south of the middle of the Sahara. It is bounded on all sides by elevated regions; hence there is no river flowing out of it, although there are several (small) rivers flowing into it. The African **mountains** are generally of no great height. The *Atlas*, in the extreme north-west, is the highest mountain range in the continent; some of its peaks are 13,000 to 14,000 ft. high. There are, however, some isolated **peaks** which rise much higher. Thus the *Kilimanjaro* and the *Kenia*, situated in the eastern parts, are respectively 19,200 ft. and 18,000 ft. high. These peaks are really two extinct volcanoes. The mountain ranges of Africa generally run parallel to the nearest coast-line, and at no great distance from it. The coast of the continent is bold and unbroken; hence the coast-line of this vast continent is only 17,000 miles in length, while that of the much smaller continent of Europe measures 19,500 miles. In fact, among all the continents the ratio of the coast-line to the area is the smallest for Africa; many of its parts are, therefore, at great distances from the sea. Africa is remarkable for its **general high level**, though there is no plateau having an elevation of more than 5,000 ft. above the sea-level. The southern half has a much higher elevation than the northern half. The total area of the **plains** is quite disproportionate to the size of the continent; the lands lying about the lower course of the Nile, including its extensive delta, and the territories situated to the west of the Sahara are the two largest plains. The other plains which deserve mention are the coasts of the Gulf of Guinea (including the delta of the Niger), and the eastern half of the region bordering on the Mediterranean Sea. *Madagascar* is the only large island in the African waters; it is separated from the continent by a wide channel called the *Mozambique Channel*.

NAMES OF THE IMPORTANT REGIONS.

N. B.—For the present political divisions see pp. 77—81.

*In the north, bordering on the Mediterranean:—*Morocco, Algeria, Tunis, Tripoli, Barca, Egypt.

The first five are collectively called the Barbary States.

*In the west, bordering on the Atlantic Ocean:—*Senegambia, Sierra Leone, Upper Guinea (including Liberia, Ivory Coast, Gold Coast, Ashanti, Dahomey, etc.), Lower Guinea (including Cameroons, French Congo, Angola, Benguela, etc.).

*In the south:—*Cape Colony, Natal, Zululand, Orange River Colony, Transvaal Colony, etc.

*In the east, bordering on the Indian Ocean:—*Delagoa, Sofala, Mozambique, Zanzibar, Somali Land, etc.

*In the east, bordering on the Red Sea:—*Abyssinia, Egypt (including a part of Nubia).

*Between Senegambia and Abyssinia:—*The Sudan.

*Between the Sudan and the Barbary States:—*The Sahara or the Great Desert.

*Inland territories in the southern half of the continent:—*Congo Free State, Rhodesia, etc.

Obs.—A very small portion of Congo Free State borders on the Atlantic.

Exploration of Africa. Egypt is one of the oldest civilized countries in the world, and the Egyptians are the earliest race of whose civilization we have any definite account. Euclid was one of the first and one of the most famous mathematicians of the University of Alexandria,* where he taught for many years (330 B. C.—275 B. C.). Egypt is still remarkable for the magnificence of its ruins, which attest its former greatness. The ruins of *Thebes*, the most celebrated and magnificent of the capitals of the *Pharaohs*, as the ancient rulers of Egypt were called, consist of palaces and temples, colossal statues, obelisks, sphinxes, and sculptures of various kinds, which continue to excite the awe and admiration of the spectators. The *pyramids* of Gizeh (opposite the city of Cairo) are still considered among the wonders of the world. The cataracts of the Nile, and the Great Desert towards the west, served to keep Egypt almost isolated

* A city on one of the mouths of the Nile.

from the rest of the continent. The want of good harbours due to the unbroken character of the coast-line, absence of easily navigable rivers, rumours about the savage character of the people, the intervention of the almost impassable desert of Sahara between the northern and central regions, and a few other causes prevented the exploration of the interior of Africa by Europeans till comparatively recent times. Two adventurous Portuguese navigators, *Bartholomew Diaz* (1483 A.D.) and *Vasco de Gama* (1488 A.D.) were the first to double the *Cape of Good Hope*. The English, French, Dutch, and the Danes also helped in the exploration of the continent. Among recent British explorers, the names of *Dr. Livingstone* (a Scotch missionary), *Captains Burton and Speke*, who were commissioned by the Royal Geographical Society, and of *H. M. Stanley* stand foremost. Livingstone discovered *Lake Ngami*, ascended up the *Zambesi* nearly to its source, and cleared away certain misconceptions regarding *Lakes Nyassa and Tanganyika*. The *Victoria Nyanza* was discovered by *Captains Burton and Speke* (1858-9 A.D.). In 1871 A.D. Stanley was despatched by the proprietor of an American newspaper—*New York Herald*—to carry aid to Dr. Livingstone, who was believed to be in danger. Stanley met Livingstone at the town of *Ujiji*, on Lake Tanganyika. The former went over to Africa again in 1875 A.D. and this time he journeyed down a great length of the *Congo*. Although so much has been done in the work of exploration, there are still extensive areas which have not been visited by any European.

The Portuguese were naturally the first to make settlements on the continent, but they were gradually followed by the English, Dutch, French, and Spaniards; and recently extensive territories have been occupied by the Germans, Belgians, and Italians. Nearly the whole of Africa is now directly or indirectly under the control of European nations. The accounts of the resources of Africa sent home by Livingstone and Stanley, induced a large influx of Europeans into Africa, and the recent discovery of diamonds and gold in parts of South Africa has certainly not retarded the influx.

GULFS AND BAYS.

Gulf of Sidra	...	...	... west of Barka.
Gulf of Tunis	...	...	... east of Tunis.

GULFS AND BAYS—(Continued).

Gulf of Guinea (including the Bight of Benin and the Bight of Biafra)	... south of Upper Guinea.
Table Bay and False Bay	... S. W. of Cape Colony.
Delagoa Bay and Sofala Bay	... east of Portuguese East Africa.
Gulf of Aden	... north of Somali Land.

ISLANDS.In the Atlantic Ocean :—

The Azores, Madeira, the Canary Isles, Cape Verde Islands, Fernando Po, Ascension, and St. Helena.

In the Indian Ocean :—

Madagascar, Bourbon or Reunion, Mauritius, Zanzibar, Pemba, Comoro Isles, Amirante Isles, Sychelle Isles, and Socotra.

Notes on the Islands.

Madagascar is the only large island in African waters. It has been under the possession of the French since 1806 A. D. when the reigning Queen was dethroned. People belonging to the former ruling race are called the **Hovas**. They are very intelligent and many of them have adopted civilized habits. The principal town in the island is **Antananarivo**. **Madagascar** is believed to be very rich in minerals, and its forests are valuable. India-rubber is the principal article of export.

Among the smaller islands, **Mauritius**, the **Seychelles**, **Amirante Islands**, **Socotra**, **Ascension**, and **St. Helena** belong to the United Kingdom. **Mauritius** exports large quantities of cane-sugar; many labourers from British India work on the sugar plantations of the island. **St. Helena** is celebrated as the place of exile of Napoleon Buonaparte; he died here in 1821 A. D. **Madagascar**, **Azores**, and **Cape Verde Islands** are Portuguese possessions. **Madagascar** is much frequented on account of its mild and equable climate. The **Canary Islands** and **Fernando Po** are owned by Spain. In one of the **Canary Islands** is the volcanic peak of **Teneriffe** (12,182 ft.). **Bourbon** (or **Reunion**) and the **Comoro Isles** produce coffee and sugar. **Zanzibar** and **Pemba** are British protectorates.

CAPIES.

Bon ...	...	...	N. E. of Tunis.
Spartel ...	...	...	north of Morocco.
Blanco and Verde ...	...	...	on the west coast.
Palmas ...	...	...	south of Upper Guinea.
Good Hope and Agulhas ...	...	...	south of Cape Colony.
Delgado ...	...	...	on the east coast.
Guardafui ...	...	...	N. E. of Somali Land.

MOUNTAINS, ETC.

Atlas Mts. ...	...	...	in Morocco and Algeria.
The Peak of Teneriffe	...	...	in one of the Canary Isles.
Kong Mts. ...	...	...	in Upper Guinea.
The Cameroon Mts.	...	...	in German Cameroons.
Nieuveld and Table Mts.	...	...	in Cape Colony.
Drakenberg Mts. ...	...	...	in Natal, etc.
Majuba Hill ...	...	...	N. W. of Natal.
Lupata Mts. ...	...	...	in Portuguese East Africa.
The Abyssinian Mts.	...	...	in Abyssinia, Br. East Africa, and German East Africa. <i>Kilimanjaro and Kenia are the two highest peaks.</i>

DESERTS.

Sahara or the Great Desert ...	...	...	between the Barbary States and the Sudan.
Kalahari Desert ...	...	...	N. of Cape Colony.

STRAITS AND CHANNELS.

The Straits of Gibraltar	...	...	between the Mediterranean Sea and the Atlantic Ocean.
The Straits of Babelmandeb	...	...	between the Red Sea and the Indian Ocean.
Mozambique Channel	...	...	between Portuguese East Africa and the Island of Madagascar.

LAKES.

Chad	...	...	in the Sudan.
Dembia	...	...	in Abyssinia.
Victoria Nyanza	...	...	between Br. East Africa and German East Africa.
Albert Nyanza and Rudolf			in British East Africa.
Tanganyika	...	...	west of German East Africa.
Nyassa and Shirwa	...	...	east of Nyassa Land.
Bangweolo	...	...	in Brit. Central Africa.
Ngami	...	...	in Southern Rhodesia.

RIVERS.

The Nile (4,100 m.) rises from the Victoria Nyanza, and also from the Albert Nyanza, flows through British East Africa, Nubia, and Egypt, and falls in several branches into the Mediterranean, forming a delta at its mouth. At Khartum it receives the tributary *Blue Nile*, which takes its rise in Abyssinia. The *Atbara* is another important tributary. There are several cataracts along the Nile.

Important towns on the Nile are :—ALEXANDRIA, ROSETTA, DAMIETTA, CAIRO, KHARTUM, AND OMDURMAN.

The Congo (3,000 m.) takes its rise from British Central Africa, receives a small tributary flowing from L. Tanganyika, passes through Congo Free State and along the S. E. border of French Congo, and falls into the Atlantic Ocean. The upper portion of the river is known under different names, Lulaba, etc.

The Niger (2,500 m.) has its rise in French Sudan, flows through French Sudan and Nigeria, and falls into the Gulf of Guinea, forming a delta at its mouth. The town of *Timbuktu* is situated near the river.

The Senegal and the Gambia flow through Senegambia westwards into the Atlantic.

The Zambesi (2,000 m.) rises from L. Dilolo in Portuguese West Africa, flows through Rhodesia and Portuguese East Africa, and falls into the Mozambique Channel. The Victoria Falls lie in the course of this river.

The Orange (1,200 m.) rises from the Drakenberg Mts., flows westwards forming the northern boundary of Cape Colony (proper), and falls into the Atlantic Ocean. It separates Cape Colony (proper) from the Orange River Colony, Griqualand West, Bechuana

RIVERS—(Continued).

land, and German S. W. Africa. Its most important tributary is the *Vaal* which separates the Orange River Colony from the Transvaal. The *Modder River* (now famous in history) is a tributary of the *Vaal*. The town of *Blomfontein* stands on the *Modder*.

The *Tugela*, which also came into prominence in the late South African War, is a small river in Natal flowing into the Indian Ocean. It separates Natal from Zululand. The town of *Ladysmith* (relieved by Lord Roberts) stands on a small tributary of the *Tugela*.

The *Limpopo* or the *Crocodile River* forms the northern boundary of the Transvaal Colony and flows into the Indian Ocean.

PRESENT POLITICAL DIVISIONS.

In the north:—Morocco, Algeria, Tunis, Tripoli with *Barka* and *Fezzan*, *Egypt* with *Nubia* and the *Eastern* or *Egyptian Sudan*.

Morocco is under a Moorish ruler known as the *Sultan of Morocco*. Its chief towns are *Fez* (pop. about 140,000), which is the capital, and *Morocco*.

Algeria is a French dependency, administered by a Governor-General. Its capital is *Algiers* (pop. about 1 lac).

Tunis is under a Muhammadan ruler called the *Bey*, who formerly acknowledged the suzerainty of the Sultan of Turkey; since 1881 A. D., Tunis has been a French protectorate. The chief town is *Tunis*.

Tripoli, with *Barka* and *Fezzan*, belongs to Turkey. The chief town is *Tripoli*.

Egypt, with *Nubia* and the *Eastern Sudan*, is under a Muhammadan ruler styled the *Khedive*. He has to pay an annual tribute to the Sultan of Turkey, but in all other respects the supremacy of the Sultan over the country is merely nominal. The financial part of the government is under British control, and the army is trained partly by British officers. The principal cities are the capital *Cairo* (pop. 570,062), *Alexandria* (pop. 319,766), and *Khartum* (the capital of the Egyptian Sudan); *Port Said*, *Suez*, and *Omdurman* are among the well known towns. The Suez Canal, connect-

ing the Red Sea with the Mediterranean, has its termini at *Suez* and *Port Said*. At *Omdurman* Sirdar Kitchener (now Lord Kitchener) finally overthrew the Sudanese Dervishes (1898 A.D.).

In the west, bordering on the Atlantic Ocean:—

- | | | |
|-----------------------|-------------------|----------|
| 1. Western Sahara. | 11. Gambia. | |
| 2. Senegal. | 12. Sierra Leone. | |
| 3. French Sudan. | 13. Gold Coast. | |
| 4. French Guinea. | 14. Ashanti. | |
| 5. Ivory Coast. | 15. Lagos. | |
| 6. Dahomey. | 16. Nigeria. | |
| 7. French Congo. | 17. Togo Land. | |
| 8. Liberia. | 18. Cameroons. | German |
| 9. Portuguese Guinea. | 19. German | Protect- |
| 10. Portuguese West | South-West | orates. |
| Africa. | Africa. | |

There are a few Spanish settlements in the Western Sahara, the chief among which is *Rio de Oro*. Senegal is a French colony; its chief town is *St. Louis*. French Sudan, French Guinea, Ivory Coast, Dahomey, and French Congo are mostly protectorates, although there are some settlements in French Sudan and French Guinea under the direct Government of the French. The chief town in French Sudan is *Timbuktu*, which is a populous town and a trade-centre. The chief town of French Guinea is *Konakry*. Liberia was originally a settlement of liberated slaves; it is an independent republic, with *Monrovia* as capital. The principal town in Portuguese Guinea is *Bissao*. Portuguese West Africa includes Angola and certain regions situated to the east of it; the chief towns are *St. Paul de Loanda* and *Benguella*. Gambia, Sierra Leone, Gold Coast, and the island of Lagos are 'crown colonies' of the United Kingdom. The chief town of Gambia is *Bathurst* (situated in the island of St. Mary), and of Sierra Leone, *Freetown*. The principal towns in the Gold Coast are:—*Accra*, *Elmina*, and *Cape Coast Castle*. Lagos includes not only the island of that name, but a part of the neighbouring coast which is under British protection. Ashanti has been a British

protectorate since 1896 A. D. ; its chief town is *Kumasi*. Nigeria comprises the territories taken possession of by a British Company formed under the leadership of Sir George Goldie in 1882 A. D., together with the Niger Coast Protectorate* (including Benin). These regions came under the administration of the British Crown in 1900 A. D. Nigeria is now divided into Northern Nigeria and Southern Nigeria, each governed by a High Commissioner.

In the south :—1. **Cape Colony**, with **British Kaffraria**, **Griqualand West**, **Bechuana Land**, and certain protectorates. † 2. **Natal** with **Zulu Land**. 3. **Basuto Land**, 4. **Orange River Colony**. 5. **Transvaal Colony**. 6. **Rhodesia**.

Cape Colony is a self-governing colony of the United Kingdom, possessing "*responsible government*." The Crown appoints the Governor (who acts as the executive head of the Colony), but has no control over any other public officer. Bechuana Land was annexed to Cape Colony in 1895 A. D. for purposes of administration. The Dutch were the first to establish settlements in Cape Colony (1652 A. D.), but the country became a British possession in 1806 A. D. The chief towns of Cape Colony are *Cape Town* (pop. over 50,000), *Port Elizabeth*, and *Graham's Town*, the first being the capital. *Kimberley* (pop. over 28,000) is the principal town in Griqualand West, and possesses valuable diamond mines ; *Vryburg* and *Mafeking* are the chief towns of Bechuana Land. At *Mafeking*, General Baden Powell was besieged lately by the Dutch Boers.

Natal is a British Colony administered by a Governor appointed by the Crown ; the self-governing power of the colonists is more limited in Natal than in Cape Colony. Zulu Land was annexed to Natal, for administrative purposes, in December, 1897 A. D. The principal towns are *Pietermaritzburg* (the capital), and the port of *Durban*.

Basuto Land is governed by a Resident Commissioner who acts under the direction of the High Commissioner for South Africa.

* Before 1897 A. D., known as Oil Rivers Protectorate.

† Walfish Bay, Pendo Land, etc.

The old "Orange Free State" was conquered from the Boers and annexed to the British Empire on May 24, 1900 A.D., and has since been styled **Orange River Colony**. The old Boer state of "Transvaal" (or South African Republic) was similarly annexed on September 1, 1900 A.D.; the state is now called **Transvaal Colony**.* The High Commissioner for British South Africa is the Governor of both of these newly acquired colonies. *Johannesburg* and *Pretoria* are the chief towns of the Transvaal, and *Blamfontein* is the principal town in the Orange River Colony. *Johannesburg* is famous for its gold mines.

Rhodesia (named after Sir Cecil Rhodes, who did much towards the development of this region) is divided by the Zambesi into Northern and Southern Rhodesia. Southern Rhodesia includes Matabele Land and Mashona Land; its capital is *Salisbury*. Rhodesia is still in the possession of the British South African Company, but there is a Resident Commissioner (acting under the orders of a High Commissioner) to supervise the work of the "Administrators" appointed by the Company.

In the east, bordering on the Indian Ocean :—

Portuguese East Africa, **German East Africa**, **British East Africa**, **Italian Somali Land**, **British Somali Land**, **French Somali Coast**.

Portuguese East Africa includes Delagoa, Sofala, and a part of Mozambique; these are Portuguese possessions and are divided for administrative purposes into *Mozambique* and *Lourenco Marques*, with capitals of the same names. The town of *Lourenco Marques* is situated on the Delagoa Bay; it is a port of some importance.

German East Africa consists of several German protectorates, and includes parts of Mozambique, Zanzibar etc. The coastal regions were purchased in 1890 A.D. from the Sultan of the neighbouring Island of Zanzibar.

British East Africa includes the East African Protectorate and the Uganda Protectorate, under the immediate control

* Peace was declared between the British and the Boers in June, 1902 A.D.

of the Foreign Office in London, together with the islands of Zanzibar and Pemba, still governed through their Arab Sultan. Large numbers of persons from British India are employed in opening up the territory. The chief town and port is *Mombassa*. The principal town in the Protectorate of **British Somaliland** is *Berbera*.

In the east, bordering on the Red Sea:—Abyssinia, Eritrea, Egypt. (See—p. 77.)

Abyssinia has been ruled by King Menelek since 1889 A.D. For sometime the Italians attempted to turn this territory into one of their protectorates, but they have been unsuccessful. The King and most of his subjects profess Christianity. The capital is *Gondar*.

Eritrea is an Italian colony; pearl-fishing is carried on near the coast.

In the centre:—The Sahara (see p. 78), **the Sudan, the Congo Free State, the Central African Protectorate (British).**

The Sudan extends from Senegal on the west to Egypt and Abyssinia on the east. The western part consists mainly of French protectorates; Central Sudan comprises Sokoto, Bornu, and other British protectorates included in Nigeria; Eastern Sudan was annexed to Egypt by Sirdar Kitchener (now, Lord Kitchener), and is often called *Anglo-Egyptian Sudan*. (See p. 78.)

The Congo Free State is governed by the King of the Belgians. Trade in this state is free to all nations; the chief seaport is *Boma*, situated at the mouth of the Congo.

The Central African Protectorate (British) includes Nyassaland and certain regions to its west. It is administered by a Commissioner acting under the orders of the Foreign Office in London.

Forests. Forests occur chiefly in upper Guinea, Lower Guinea, and in the basins of the Niger and the Congo. The principal trees in these forests are the *oil-palms* and the *India rubber tree*. The *mahogany* is found in the forests of the Ivory Coast, and the *ebony* in those of South Nigeria. The forests of Uganda, Abyssinia, Madagascar, and German East Africa, also abound with valuable trees. The *baobab* tree, famous for its huge trunk and marvellously long age, occurs in

Dahomey, Senegal, German East Africa, etc. In German East Africa we meet also with some familiar Indian trees, *e. g.*, the *banyan* and the *amarind*. Africa is at present the first rubber-producing continent in the world; the rubber is heavily exported to Europe. Palm oil, palm kernels, timber, gums, etc. are also valuable articles of export.

Agriculture. Among the cultivated plants of the continent, the most important are:—*Cotton, sugar-cane, wheat, rice, millets, the vine, coffee, maize, cocoa, paper-fibres, flax, hemp, tobacco, olives, and tea.* The soil of Egypt, fertilised by the annual inundation of the Nile, is specially suitable for the cultivation of cotton, sugar-cane, rice, and tobacco. Egypt ranks as the second cotton producing country in the world; the out-turn of wheat is also large. Sugar-cane is cultivated very extensively also in the islands of Mauritius, Reunion, and Madagascar. The agricultural products of Algeria and Tunis resemble those of Spain and Italy; thus, wheat, the vine, maize, paper fibres, cork, flax, hemp, and olives are successfully cultivated either in Algeria or in Tunis, and many of them in both these countries. The vine and wheat thrive well also in Cape Colony. Cultivation of tea has been lately introduced into Natal, but the product is inferior in quality to our Indian tea.

Distribution of the chief vegetable products.

India rubber	...	Senegambia, Upper Guinea, Lower Guinea, Congo Free State, Rhodesia, British Central African Protectorate, Portuguese East Africa, German East Africa, British East Africa, and the islands of Madagascar and Mauritius.
Oil-palms ...	...	Sierra Leone, Upper Guinea, French Congo, and Congo Free State.
Cotton ...	...	Egypt and Madagascar; also, Abyssinia, Lagos, Gambia, and Northern Nigeria.
Sugar ...	...	Egypt, Mauritius, Reunion, Madagascar, Natal; also, Liberia, Portuguese West Africa, and Abyssinia.
Wheat, Barley, and Oats ...	...	Egypt, Algeria, Cape Colony, Tunis, etc.
Maize ...	...	Egypt, Tunis, Cape Colony, Natal, Senegal, Upper Guinea, German East Africa.

Millets	...	Senegal, Fr. Guinea, Cape Colony, Abyssinia, etc.
Rice	..	Egypt, Madagascar, Senegal, Gambia, etc.
Beans	...	Egypt, Morocco, Tunis, etc.
The vine	...	Algeria, Tunis, Cape Colony, Abyssinia.
Trees yielding gums	...	Morocco, Senegal, Nigeria, British East Africa, Abyssinia, etc.
Coffee	...	Somaliland, Liberia, Lagos, Madagascar, Reunion : also, Togoland, French Congo, Congo Free State, Portuguese West Africa, Natal, Rhodesia, British Central African Protectorate, German East Africa, Abyssinia.
Cocoa'	...	French Congo, Liberia, Lagos, Congo Free State, Madagascar, Reunion, Cameroons, German East Africa, etc.
Alfa grass (for paper making)	...	Algeria, Tunis.
Cork	...	Algeria, Tunis.
Flax	...	Algeria.
Hemp	...	Madagascar, Mauritius.
Tobacco	...	Egypt, Algeria, Madagascar, Congo Free State.
Date palms		Algeria, Tunis, Abyssinia, oases in the Sahara.
Coco-nuts	...	Senegal, Upper Guinea, Portuguese West Africa, German East Africa, Mauritius, etc.
Plantains	...	Upper Guinea, German East Africa, British East Africa.
Various fruits		Tunis, Morocco, Cape Colony, Rhodesia.
Olives	...	Algeria, Tunis.
Earth nuts	...	Senegambia, Upper Guinea.
Kola nuts	...	Sierra Leone, Senegal, Gold Coast, French Congo.
Tea	...	Natal.
Indigo	...	Nigeria.
Tapioca	...	Madagascar, French Congo, Dahomey, Lagos, Togoland.
Vanilla	...	Madagascar, Reunion, Mauritius, German East Africa, French Congo.

Minerals. Gold and diamond occur chiefly in the Transvaal and Orange River Colonies ; there are valuable diamond

mines also in Griqualand West. *Coal* occurs in Natal, *Iron* in Algeria, and *copper* in Cape Colony, Algeria, etc. There are large deposits of *mineral phosphates* (used as manures) in Algeria and Tunis.

Distribution of the principal minerals.

Diamonds	...	Transvaal (Pretoria District), Griqualand West, Orange River Colony.
Gold	...	Transvaal, Orange River Colony; also, Madagascar, Gold Coast, Somaliland, Abyssinia, Rhodesia, etc.
Coal	...	Natal, Transvaal, Orange River Colony, Rhodesia, German East Africa, etc.
Iron	...	Algeria, Abyssinia, German East Africa; also, Natal, Madagascar, etc.
Copper	...	Cape Colony, Algeria, Transvaal, German S. W. Africa; also, Natal, Madagascar, Morocco, German East Africa, etc.
Silver	...	Algeria, Transvaal; also, Rhodesia, Nigeria.
Zinc	...	Algeria, Tunis, etc.
Lead	...	Algeria, Tunis, German East Africa, Transvaal, etc.
Salt	...	Algeria, German East Africa, etc.
Phosphate of Lime	...	Algeria, Tunis.
Petroleum	...	Algeria.
Marble	...	Tunis.
Mica	...	German East Africa.

Zoology. Africa, like Asia, is the home of many large animals, some of them being peculiar to the continent. The *lion* and the *leopard* are found throughout the continent, excepting the cultivated parts; the *elephant* occurs south of the Sahara; the *rhinoceros* frequents the forests of the central and southern parts of the continent; the *giraffe* ranges from the north of Cape Colony to the southern borders of the Sahara, but is not found upon the western coasts; the *Zebra* is met with in the central and southern regions (chiefly in Portuguese East Africa, Matabeleland, etc.); and the *hippopotamus* on the banks and in the shallow courses of most of the rivers. Numerous species of *antelopes* occur in the continent. The *chimpanzee* inhabits the Guinea Coasts and the

Gorilla the forests of the Congo basin; the *Barbary ape* is found in Morocco, Algeria, and Tunis. *Crocodiles* are plentiful in the Nile. The *ostrich*, which is the most important bird of Africa, is found specially in the southern and eastern parts; *ostrich* farming is gradually becoming an important industry in these regions. The *camel* is reared in the northern countries and the Sudan.

Principal Articles of Export. Gold, diamond, cotton and cotton seeds, India-rubber, palm-oil and palm kernels, sugar, coffee, wheat, beans, gums, ivory, wool (Cape Colony, Natal, Transvaal, Algeria, Morocco), ostrich feathers (Egyptian Sudan, Cape Colony, Transvaal, etc.), hides and skins, leather (Algeria, Morocco, Nigeria), tobacco, cocoa, wine, rum (Mauritius), timber, alfa grass, cork, sheep (Algeria), phosphate of lime, guano (German S. W. Africa), silk (Algeria), pearls and mother of pearl (Italian Somaliland), sponges (Tunis), etc.

Climate. The climate of Morocco, Algeria, and Tunis is similar to that of the southern countries of Europe. In the Sahara the heat is extreme, and there is no rain-fall; in Egypt also, rain-fall is very rare. The region of the greatest heat lies midway between Lake Chad and the town of Khartum. The Guinea Coasts are very moist and unhealthy. Cape Colony, Natal, etc., are characterized by winter rains; the climate is temperate and healthy.

Races and Religions.—See Chap. XI.

CHAPTER VI.

NORTH AMERICA.

Boundaries. North America is bounded on the north by the Arctic Ocean; on the east by the Atlantic Ocean; on the south by the Gulf of Mexico and the Isthmus of Panama; and on the west by the Pacific Ocean.

Extent. The greatest length from N. W. to S. E. is about 4,600 miles; the greatest breadth from W. to E. is about 3,120 miles. Its area* is more than double that of Europe, and less than half that of Asia.

PRINCIPAL DIVISIONS.

The Dominion of Canada.	The Island of Greenland.
The United States of America.	West Indian Archipelago or the West Indies.
Central America.	

Natural features. North America is separated from Asia by the Pacific Ocean, the two continents being nearest to each other at the *Behring Strait*. The Atlantic Ocean separates North America from Europe, the two continents being nearest to each other at *Denmark Strait*, which divides the American island of Greenland from the European island of Iceland. North America is a vast peninsula gradually narrowing towards the south into the *Isthmus of Panama*, which connects it with another vast peninsula, viz., South America. North America has, in proportion to its area, a greater extent of sea-coast than any other continent, except Europe and Australia; this is due to certain great bays of the sea, and the small breadth of the southern portion of the continent. The principal bays are *Hudson*.

* Nearly eight millions of square miles.

Bay (N. of Canada), *G. of St. Lawrence* (E. of Canada), *G. of Mexico* (S. of the United States), and *G. of California* (W. of Mexico). The United States are well watered by the great river, the *Mississippi* (3,400 m.), which, with its large and important tributaries, the *Missouri* and the *Ohio*, possesses an extensive basin. From the source of the *Missouri* to the sea, the length is about 4,200 miles; measured in this way, the *Missouri-Mississippi* is **the longest river** in the world. The *St. Lawrence* is the next important river in North America. It connects *Lake Ontario* with the Atlantic, and its mouth widens into a broad estuary. From the above lake to the island of *Anticosti*, which may be taken to be the limit of the estuary, the length is 1,934 miles; but when measured from its source, to the west of *L. Superior*, the length is 2,000 miles. No other continent possesses such a large number of extensive **fresh water lakes** as North America does. *L. Superior* is 412 miles long and 167 miles broad, and is the **largest fresh water lake** in the world. (For the other lakes see *post*—under “*Lakes*.”) There are two long chains of **mountains** in the western part of the continent, *viz.*, the *Cascade Range* and the *Rocky Mountains*. Each of them runs parallel to the west coast and possesses several **volcanic peaks**. (see *post*—under “*Mountains*”). The most important **plains** are parts of the United States. The valley of the *Mississippi* is extremely fertile; west of the *Missouri* the country is treeless, but the soil is not unfertile; this portion is known as the *prairies*; westwards still the country is dry and sandy. The eastern part of the United States is well-wooded, but the soil is not so fertile as in the valley of the *Mississippi*. The regions bordering on *Hudson's Bay* are plains, but the severity of the climate renders them of little use. The rest of the continent (except the valley of the river *Mackenzie*) consists of elevated tracts or **plateaux**. The Mexican plateau is more elevated than the table-lands of the United States and Canada surrounding the vast lakes between the two countries. The richest and most extensive **forests** in the continent are those of the Dominion of Canada. For the other forest regions, see p. 97.

The Discovery of the Continent. There is no doubt that America was known to the Norsemen about 1000 A. D., but it was opened to European influence only after its re-discovery by Christopher Columbus in 1492 A. D. Columbus is believed to have been born near Genoa in Italy. His idea

was that by sailing continually westwards from Europe he would be able to reach India. He sought the assistance of several princes of Europe to send him on a voyage of discovery; after great delay and various discouragements, he succeeded in inducing Ferdinand and Isabella, then sovereigns of Spain, to furnish him with three small vessels. Accompanied by 120 men, he set sail in August, 1492 A. D. When no land appeared for several months, the crew became nearly mutinous; but fortune favoured Columbus, for before long he reached the shores of one of the West India Islands. He next visited some of the neighbouring islands (*Cuba, Hayti*, etc.), and then returned to Spain. He made three other voyages to America, and discovered the northern coast of South America. Columbus believed till his death that he had discovered India, and hence the newly discovered regions were called **the Indies**. Subsequently, when the mistake was found out, the same regions came to be called **the West Indies**.

Colonisation of North America by the Europeans. The Spaniards were naturally the first to colonise the West India Islands (1498 A. D.); a few years afterwards they were followed by the Portuguese who began to settle in South America, while the Spaniards entered Mexico and conquered it. In 1604 A. D. the French first colonized Nova Scotia (then called *Acadie*), and after four years they founded the settlement of *Quebec* (see p. 89). Later, *Virginia, New England*, and *Georgia* (all included within the limits of the present United States), and the Islands of *Newfoundland* and *Jamaica* were occupied by the British. Canada was conquered by the British between 1759-1763 A. D. In 1776 A. D. the United States of America (then a British colony) declared themselves independent of the mother-country, and in 1783 A. D. England had to acknowledge their independence. The Europeans who settled in the warmer parts of America used formerly to import large numbers of Negro slaves from Africa. The slave-trade was abolished by Great Britain in 1807 A. D., and slavery itself was put an end to in the British Dominions in 1834 A. D. The present population of North America exceeds 104 millions, of whom about 7 millions are of Indian descent (*i.e.*, are descended from the original inhabitants of America), and 12 millions are of African extraction, the rest being immigrants from Europe or their descendants.

COUNTRIES WITH THEIR CHIEF CITIES AND TOWNS.

N. B.—The capitals are given in italics.

1. British North America, which comprises—

- (a) The Dominion of Canada ... *Ottawa*.
including the provinces of :—
- | | |
|--|--|
| <p>Formerly called Acadia or "the land of plenty."</p> | <p>Quebec (formerly Lower Canada) ... <i>Quebec</i>, Montreal.</p> |
| <p>Ontario (formerly Upper Canada)</p> | <p>... <i>Toronto</i>, Hamilton, Ottawa, London.</p> |
| <p>{ Nova Scotia with Cape Breton Island }</p> | <p>... <i>Halifax</i>.</p> |
| <p>{ New Brunswick ... }</p> | <p>... <i>Fredericton</i>, St. John.</p> |
| <p>{ Prince Edward Island }</p> | <p>... <i>Charlottetown</i>.</p> |
| <p>Manitoba</p> | <p>... <i>Winnipeg</i>.</p> |
| <p>British Columbia }</p> | <p>... <i>Victoria</i>.</p> |
| <p>with Vancouver Island }</p> | |
- The North West Territory, ... *Regina*, *Dawson City*.
besides the Arctic Islands and the peninsula of Labrador (omitting its eastern coast).

- (b) The Island of Newfoundland (with the eastern coast of Labrador). The capital is *St. John's*.

2. The United States :—*Washington*, New York, Chicago, Philadelphia, Boston, *San Francisco*, New Orleans

3. Mexico ... *Mexico*, Puebla.

- | | |
|------------------|--|
| Central America. | 4. Br. Honduras or Belize ... <i>Belize</i> . |
| | 5. Guatemala... .. <i>Guatemala</i> . |
| | 6. San Salvador <i>San Salvador</i> . |
| | 7. Honduras <i>Tegucigalpa</i> . |
| | 8. Nicaragua... .. <i>Managua</i> . |
| | 9. Costa Rica... .. <i>San José</i> . |

GULFS, BAYS, etc.

Hudson Bay and Baffin Bay	...	N. of Canada.
G. of St. Lawrence	...	E. of Canada.
B. of Fundy	...	between New Brunswick and Nova Scotia.
Chesapeake B.	...	E. of the United States.
G. of Mexico	...	S. of the United States.
G. of Campeachy	...	E. of Mexico.
B. of Honduras	...	E. of Br. Honduras.
Carribean Sea	...	E. of Central America.
G. of California	...	between Lower California and the rest of Mexico.
G. of Georgia...	...	S. W. of Br. Columbia.

ISLANDS.

Greenland, Baffin Land, Parry Is., Banks Land, etc.	...	in the Arctic Ocean.
Newfoundland	...	S. E. of Labrador.
C. Breton and Pr. Edward Islands	...	near Nova Scotia.
The Bermudas	...	in the Atlantic Ocean.

The West Indies, or the West India Islands—an archipelago separating the Carribean Sea from the rest of the Atlantic Ocean—comprising :—

- (a) **The Bahamas.**
- (b) **The Greater Antilles**—including Cuba, Jamaica, Hayti, Porto Rico, and smaller islands.
- (c) **The Lesser Antilles**—including the **Leeward Isles**—*viz.*, the Virgin Isles, Santa Cruz, Christopher Isle, Berbuda, Antigua, Guadeloupe, Dominica, etc.
the **Windard Isles**—*viz.*, Martinique, Grenada, St. Vincent, St. Lucia, etc.
- (d) **Barbados.**
- (e) **Trinidad and Tobago.**
- moouver Island and Queen Charlotte Isles**—west of the Dominion of Canada.

MODERN GEOGRAPHY.

Notes on the Islands.

The West Indies. The largest islands are:—Cuba (capital, Havana), * Hayti, Jamaica (capital, Kingston), Porto Rico, and Trinidad. Cuba and Porto Rico were ceded by Spain to the United States in the end of 1898 A. D.; the government of Cuba was transferred to the Cuban people in the beginning of 1902 A. D. Jamaica and Trinidad are British colonies. Numbers of labourers emigrate from British India to work on the sugar plantations of Trinidad. The western portion of the island of Hayti was formerly a French, and the eastern portion a Spanish colony. They are now two independent native republics, the western portion being known as the Republic of Hayti and the eastern as the Republic of Santo Domingo. Among the smaller islands and groups of islands, the Bahamas, Barbados, and Tobago are colonies of the United Kingdom; Martinique and Guadeloupe are French colonies; Curacao and a few other islands are colonies of Holland; St. Thomas, St. John, and St. Croix are Danish colonies. Martinique has suffered very severely from the recent eruption of Mt. Pelee. The most important products of the West India Islands are:—Sugar-cane, tobacco, coffee, mahogany, logwood, cocoa, cotton, pine-apples, and oranges. The sponge and pearl-fisheries of the Bahamas are of great importance.

Other Islands:—Among the other North-American islands, Greenland is a Danish possession; Newfoundland, Cape Breton, Anticosti, Prince Edward Island, the Bermudas, Vancouver, and Queen Charlotte Islands are colonies of the United Kingdom.

MOUNTAINS AND VOLCANOES.

The Cascade Range—runs parallel to the west coast of Lower California, the United States, and Canada, and extends into the interior of Alaska. The two volcanic peaks, viz., Mt. St. Elias and Mt. Fairweather are respectively 18,100 ft. and 16,000 ft. high. Mt. Logan (19,530 ft.) is the highest peak in North America.

The Sierra Nevada—in the west of the United States.

The Rocky Mts.—run parallel to the Cascade Range and extend from the N. E. corner of Alaska to the north of Mexico, but extensions of the Rocky run throughout Mexico and Central America; thus the Sierra Madre in Mexico may be looked upon as an offshoot of the Rocky Mts. The two highest peaks of the Rocky are:—Mt. Brown (15,900 ft.); and Mt. Hooker (15,700 ft.), east of British Columbia.

Popocatepetl and Orizaba—in Mexico, are two volcanic peaks, each about 18,000 ft. in height.

or the Appalachian System—in the United States

Mt. Pelee (a volcano)—in the island of Martinique.

* Population, nearly 2½ laes.

THE ELEMENTS OF

CAPES. ✓

Farewell ...	...	...	S. E. of Greenland.
Sable ...	...	...	S. E. of Nova Scotia.
Cod and Hatteras ...	...	...	E. of the United States.
Sable ...	...	...	S. E. of the United States.
St. Lucas ...	...	...	S. of Lower California.

PENINSULAS. ✓

	...	...	N. W. of the continent.
Labrador ...	...	...	N. E. of the continent.
Nova Scotia ...	...	...	S. E. of Canada.
Florida ...	...	...	S. E. portion of the United States.
Yucatan ...	...	...	S. E. portion of Mexico.
Lower California			W. of G. of California. ✱

STRAITS. ✓

(Behring Strait ..	between the Arctic Ocean and the Pacific Ocean. It separates America from Asia.
Davis Strait .	between the islands of Greenland and Baffin Land.
Denmark Strait .	between Greenland and Iceland.
Hudson Strait .	between Baffin Land and Canada.
Cabot Strait .	between the islands of Newfoundland and C. Breton.
Strait of Florida .	between the peninsula of Florida and the Bahama Isles.
Queen Charlotte Sound ...	between Vancouver and Canada.

LAKES.

Great Bear, Great Slave,
Athabasca, Winnipeg ... in Canada.
Superior, Michigan, Hu-
ron, Erie, and Ontario ...

between the United States and Canada. These five large lakes form one continuous body of water. The famous Niagara falls lie between Erie and Ontario. L. Superior is the largest fresh-water lake in the world. ✱

Imps

MODERN GEOGRAPHY.

LAKES—(Continued).

Great Salt Lake in the west of the United States.
Nicaragua between Nicaragua and Costa Rica.

RIVERS.

The Mackenzie
(2,300 m.)

.. rises from Mt. Brown, flows through Athabasca and Great Slave Lakes, and falls into the Arctic Ocean.

The Yukon

rises from Mt. Fairweather and from the Rocky Mts, flows through Canada and Alaska, and falls into the Behring Sea. The Klondyke is a small tributary, and at the confluence stands Dawson City.

The St. Lawrence
(2,000 m.).

connects Lake Ontario with the Gulf of St. Lawrence. Montreal and Quebec stand on it. Ottawa is situated on the tributary of the same name.

Imp. The Mississippi
(4,200 m.)

rises from L. Itasca, W. of L. Superior, receives at St. Louis its largest tributary, the Missouri, and falls into the Gulf of Mexico. The famous city of New Orleans is close to its mouth. Another tributary is the Ohio, on which stand the important cities of Pittsburgh, Cincinnati, and Louisville.

Imp. The Hudson, the Delaware, and the Potomac

are three small rivers in the United States, all flowing into the Atlantic Ocean. The city of New York stands at the mouth of the Hudson; Philadelphia is on the Delaware; and Washington, on the Potomac.

The Rio Grande del Norte

rises from the Rocky Mts, flows through the United States, and along the N. E. border of Mexico, and falls into the Gulf of Mexico.

The Colorado

rises from the Rocky Mts, flows mainly through the United States, and falls into the Gulf of California.

NOTES ON THE COUNTRIES AND THE
CHIEF CITIES.

Alaska (with the Aleutian Islands close to it) was sold by Russia to the United States in 1867 A. D. Gold was discovered, a few years ago, in the Yukon District; immigration from Canada and the United States began forthwith, in spite of the extremely cold climate of Alaska, and want of provisions and roads. Various mining centres have sprung up, among which Cape Nome may be mentioned.

The Dominion of Canada is a colony of the United Kingdom. The executive power is vested in the Crown, and exercised through a Governor-General, who is assisted by a Council. The legislative power rests chiefly with the colonists. Ottawa is the capital of the Dominion. The different provinces of the Dominion possess their own local governments; the seat of the local government of Ontario (formerly Upper Canada) is Toronto (pop. 2 lacs), and that of Québec (formerly Lower Canada) is Quebec. The most populous and the largest commercial city in the Dominion is Montreal (pop. 2½ lacs). The forests, mines, and fisheries of the Dominion are of very great value. The most valuable mines are those of coal and gold.* The country is suitable for the cultivation of wheat and maize, as well as for pasturage. The most important exports are:—wood and timber, animal products (cheese, bacon, hams, butter, etc.), wheat and wheat-flour, and gold ores. Fishes (cod, salmon, herring, lobsters, etc.), cattle, coal, apples, maize, skins and furs are also exported in considerable quantities.

Newfoundland (with the east coast of Labrador). The east coast of Labrador is politically attached to Newfoundland. The Government is distinct from that of the Dominion of Canada. There are valuable mines of copper and iron in Newfoundland, and the fisheries (cod, salmon, herring, etc.) are valuable. Cod-fish and seal-skin are the chief articles of export.

The United States. This vast country which includes an area of over 3 millions of square miles is about twice the size

* For the other minerals, see p. 98.

of India (excluding Burma) It is extremely rich in minerals, and the soil is very fertile in several parts, notably in the basin of the Mississippi. These circumstances have been taken full advantage of by the American people, who are not a whit behind their trans-Atlantic brethren in enterprise and mechanical skill. Some idea of the resources and the development of the country will be obtained from the facts that it is already the first wheat, cotton, and tobacco producing country in the world,* and its annual out-turn of gold, silver, iron, copper, and aluminum is at present the largest in the world. Besides these, the country possesses almost inexhaustible mines of coal and petroleum.† The population has gone up by leaps and bounds: in 1790 A. D. it was less than 4 millions; now it exceeds 76 millions, including about 9 millions of coloured races (mostly Negroes, the rest being Red Indians, Chinese, and Japanese). In population (see p. 96) and commerce, the city of New York ranks as the second city in the world. As regards the value of the export trade, the United States have recently surpassed even the United Kingdom—the first commercial state in the world. The total length of railways open in the States exceeds 194,000 miles. Manufactures are in a highly developed condition and include those of iron and steel, copper, cotton, wool, tobacco, leather, carriages, agricultural implements, drugs and chemicals, scientific instruments (including electric appliances), paper, sugar, India-rubber, etc. It is not surprising that the number of immigrants into such a splendid and highly developed country like the States, containing at the same time only 25 inhabitants per square mile, should approach half a million in a year, as was the case in 1901 A. D.‡ Each of the several States in the country is a republic in itself, and has a government of its own; but there is also a central government which deals with matters of national interest, i. e., the government is a federal republic. The legislative power of the general government is vested in a Congress, and the executive power in a President.

* For the other important agricultural products, see p. 97.

† For the other minerals occurring in the country, see p. 98.

‡ The largest number of immigrants came from Italy, Austria-Hungary, Russia, and the British Isles.

The principal cities in the country are given below :—

- New York** ... is the commercial capital of the States. In population and commerce it now ranks as the second city in the world. (Pop. 3,437,202.)
- Chicago** * ... (on L. Michigan) is the largest grain market in the world, and has extensive trade also in pork, bacon, and lard. It is a great manufacturing city and railway centre. There is a famous University in the city. (Pop. nearly 17 lacs.)
- Philadelphia** ... is famous for many educational and literary institutions. (Pop. nearly 13 lacs.)
- Saint Louis** * ... is noted for iron manufactures; it exports flour, meat, cotton, etc. (Pop. 5½ lacs.)
- Boston** ... is the literary capital of the States. (Pop. over 5½ lacs.)
- Baltimore** ... contains a population of over 5 lacs.
- Cleveland** ... has a population of nearly 4 lacs.
- Buffalo** ... has a population of over 3½ lacs.
- San Francisco** ... is the chief western port, with extensive trade in grains and fruit; the mining interest and the manufactures are important. The Chinese have settled here in large numbers. (Pop. nearly 3½ lacs.)
- Cincinnati** ... has some important manufactures and is the principal pork market in the country. (Pop. over 3 lacs.)
- Pittsburg** ... is famous for iron manufactures; it is known as the "Birmingham of the States." (Pop. over 3 lacs.)
- New Orleans** * ... is the principal port on the Gulf of Mexico; it is the largest cotton market in the world, and exports cotton, tobacco, flour, etc. (Pop. nearly 3 lacs.)
- Washington** ... is the capital of the Federal Republic, and the seat of the Congress. (Pop. nearly 3 lacs.)

Mexico. The population consists of whites of Spanish origin, Indians (i.e. Red or American Indians), Negroes, and mixed races. For the vegetable and mineral productions, see page 97.

Central America. All the states in Central America, except British Honduras, are republics. For the vegetable and mineral productions, see below.

Forests. The richest forests in the continent are those of Canada. In the United States forests occur on the slopes of the Alleghany Mts. and in the region between the Rocky Mountains and the Pacific Ocean. The principal forest trees are the *oak*, *pine*, *birch*, *maple*, *cedar*, *poplar*, and *walnut*. The *Wellingtonia gigantea*, which grows to a height of 400 ft., is found in California. The forests of Central America and Mexico yield *mahogany*, *India-rubber*, and *logwood*; those of Mexico also, the *oak*, *rosewood*, and *ebony*.

Agriculture. The most valuable agricultural products of the United States and Canada have been noticed before. (See pp. 94-5.) The principal cultivated products of Mexico are *maize*, *cotton*, *wheat*, etc.; those of Central America and the West Indies are *sugar-cane*, *coffee*, *cotton*, *tobacco*, and *cocoa*. It may be added that the potato, tobacco, maize, and cocoa are indigenous to America.

List of the principal agricultural products of the continent.

The United States.....Wheat (*in the Upper Mississippi basin, etc.*), cotton (*in the southern States—north of the Gulf of Mexico*), tobacco (*in the States of Kentucky, Virginia, etc.*), maize, barley, oats, flax, hemp, the vine (*in the State of California*), sugar-cane (*chiefly in the States of Texas and Louisiana, N. of G. of Mexico*), beet (*in the State of California, etc.*), potatoes, rye, rice, various fruits (apples, raisins, oranges, etc.).

Canada Wheat, maize, apples.

Mexico Maize, cotton, wheat, barley, sugar-cane, coffee, cocoa, tobacco, hemp, henequen fibre for making paper (cultivated in the peninsula of Yucatan, and largely exported to the United States).

Central America .. Coffee, cocoa, cotton, sugar-cane, tobacco, maize, wheat, rice, potatoes, sarsaparilla, bananas, coco-nuts, indigo (San Salvador), etc.

The West Indies ... Sugar-cane, tobacco, coffee, cocoa, cotton, fruits (pine-apples, bananas, and oranges).

Minerals. The most important minerals found in the United States, Canada, and Newfoundland have been noticed

before (*see* pp. 94-5). Mexico is also rich in minerals. (*See* the list given below.)

List of the principal minerals found in the continent.

The United States	Gold (California and Alaska), silver, iron, copper, lead, aluminum, coal, petroleum, zinc, tin, mercury, borax, salt, nickel, antimony, platinum, etc.
Canada	Coal, gold, nickel, copper, lead, silver, petroleum, asbestos, etc.
Newfoundland ...	Copper, iron, etc.
Mexico	Gold, silver, lead, copper, iron, zinc, mercury, antimony, sulphur, etc.
Central America ...	Gold (Honduras, Costa Rica, and Nicaragua); silver (Honduras and Costa Rica); copper, lead, zinc, iron, coal, antimony, and platinum (Honduras).
The West Indies ...	Copper (Hayti).

EXPORTS.

Mineral productions:—Gold and gold ore, silver, iron and steel, copper, petroleum, coal, aluminum, etc.

Animals and animal products:—Cattle, sheep, frozen beef, cheese, bacon, hams, butter, lard, fishes, furs and skins.

Vegetable products:—Timber and wood, wheat and wheat-flour, maize, barley, oats, cotton, tobacco, sugar, cocoa, coffee, fruits, vegetable oils and oil-cakes, etc.

Manufactured articles. See the United States, p. 95.

Zoology. The *polar bear*, the *reindeer*, and the *musk-ox* occur in the extreme north, chiefly in the islands. The *grizzly bear*, the *bison*, the *beaver*, and the *moose deer* are found in the United States and the Dominion of Canada, the first in the west, the next two in the middle, and the last in the east. The *Puma* or *American lion*, *Newfoundland* and *Mackenzie River dogs*, the *opposum*, the *rattlesnake*, the *seal*, the *walrus*, the *whale*, *eagles*, *vultures*, and *hawks* deserve special mention.

Climate. At equal distances from the North Pole, the northern and north-eastern parts of North America are much colder than the northern and north-western parts of Europe. The difference is due to a great measure to the facts that a cold

sea-current coming from the ice-bound north, flows along the eastern coast of America, while a warm sea-current (called the *gulf stream*) starting from the Gulf of Mexico, flows towards the north-west of Europe. Hence it is that Greenland is colder than Iceland, and Labrador than England. The difference in climate depends also on the direction of the prevailing winds; the eastern coasts of North America do not like the western coasts of Europe, get the benefit of warm winds from the southern seas. Almost constant rains prevail on the western coast of North America, the reason being that the Rocky Mountains intercept the moisture; hence also, the lands immediately to the east of the Rocky are dry and barren. The climate of Central America and that of the West Indies is warm and moist.

Races and Religions—see Chapter XI.

CHAPTER VII.

SOUTH AMERICA.

Boundaries. South America is bounded on the north by the Caribbean Sea and the Atlantic Ocean ; on the east by the Atlantic Ocean ; on the south by the Great Southern Ocean ; and on the west by the Pacific Ocean.

Extent and Population. South America extends from the southern frontier of Costa Rica to Cape Horn, about 4,700 miles. Its greatest breadth from E. to W. is about 3,000 miles. The area is about 7 millions of sq. miles, so that it is smaller than North America by about 1 million of sq. miles. The population is believed to be 38 millions.

Natural features. In shape as well as in the distribution of the mountains, South America resembles North America in some respects. Each of them is a vast peninsula. The greater mass of land lies in both cases towards the north, the continents narrowing towards the south. We may compare the *Andes* running parallel to the west coast of South America to the *Rocky* and the *Cascade Range* of North America, and the *Brazilian Mountains* with the *Alleghanies*. In both cases the western mountain ranges are studded with volcanoes (see pp. 91 and 103). But there are no noble lakes in South America as there are in North America. Brazil is the most fertile country in South America ; it is well watered by the *Amazon* (4,000 m.), one of the three longest rivers in the world, and its numerous tributaries. Measured with respect to the abundance of its waters, the *Amazon* is the grandest river in the world, and is sometimes called 'the Mediterranean of South America.' Other important rivers of South America are *La Plata*, the *Orinoco*, and the *San Francisco*. East of the *Andes* the continent consists of vast plains, called in the basin of the *Orinoco*, *llanos* ; in the *Amazon* basin, *sebas* ; and in the state of *Argentina*, *pampas*. The *llanos* and the *sebas* are covered with forests.

COUNTRIES WITH CHIEF TOWNS.

N. B.—The capitals are given in italics.

<i>Countries.</i>	<i>Chief towns.</i>
(The United States of Colombia (including the Isthmus of Panama, New Granada, etc.) ...	<i>Bogotá.</i>
Venezuela ...	<i>Caracas.</i>
British Guiana (including Demerara and other settlements)...	<i>Georgetown.</i>
Dutch Guiana ...	<i>Paramaribo.</i>
French Guiana ...	<i>Cayenne.</i>
Brazil ...	<i>Rio Janeiro*</i> (pop. 7½ lacs), <i>Bahia or S. Salvador*</i> (pop. nearly 2 lacs), <i>Per-nambuco.</i>
Bolivia ...	<i>La Paz,† Sucre.</i>
Paraguay ...	<i>Asuncion.</i>
Uruguay ...	<i>Monte Video*</i> (pop. 2½ lacs)
The Argentine Republic or Argentina (including Pata-gonia) ...	<i>Buenos Ayres*</i> (pop. 8¼ lacs), <i>La Plata.</i>
Chile ...	<i>Santiago</i> (pop. 3 lacs), <i>Valparaiso.*</i>
Peru ...	<i>Lima.</i>
Ecuador ...	<i>Quito.</i>

N. B.—Parts of Brazil were colonized first by the Portuguese, and the other countries (except the Guianas), by the Spaniards. Of late, large numbers of Italians have been immigrating into Argentina, Brazil, and Uruguay. The three Guianas are colonies respectively of the United Kingdom, Holland, and the French Republic. All the remaining countries are now republics.

* This is a great port.

† This is the present temporary capital.

GULFS AND ESTUARIES.

G. of Darien	N. of Colombia.
*G. of Maracaybo	...	...	N. of Venezuela.
The Estuary of the Amazon	...	...	N. of Brazil.
" " " La Plata (formed by the union of the rivers Uruguay and Parana)	...	...	between Uruguay and Argentina.
G. of Guayaquil...	...	...	W. of Ecuador.
G. of Panama	...	...	S. of the Isthmus of Panama.

ISLANDS.

Trinidad	...	...	near the coast of Venezuela.
Falkland Islands	...	...	S. E. of Argentina.
Tierra del Fuego	...	...	to the extreme south of the Continent.
Wellington and Chiloe	...	...	W. of Chile.
Juan Fernandez and Galapagos Isles.	...	...	in the Pacific Ocean.

Notes on the Islands.

The first two are British colonies. A part of *Tierra del Fuego* belongs to Argentina, and the rest to Chile. The next two islands are owned by the republic of Chile, and *Galapagos Is.* by that of Ecuador. *Juan Fernandez* belongs to Chile.

CAPES.

S. Roque	...	...	N. E. of Brazil.
Prio	...	...	E. of Brazil.
Horn	in the extreme south of the Continent.

ISTHMUS.

Panama	between North America and South America.
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MOUNTAINS AND VOLCANOES.

The Andes ... run parallel to the whole of the western coast of South America. They possess a very large number of high volcanic peaks, some of them often active. The chief among these are—

Aconcagua (23,400 ft.).....in Chile.

Sorata (21,286 ft.)...in Bolivia.

Chimborazo (20,475 ft.),

Otopaxi (19,613 ft.), and

Antisana (19,335 ft.).....in Ecuador.

The Brazilian Mts. ... in the east of Brazil.

STRAIT.

Str. of Magellan ... between Chile and Tierra del Fuego.

LAKES.

Maracaybo ... N. W. of Venezuela.

Titicaca ... between Peru and Bolivia.

RIVERS.

The Amazon
(4,000 miles) ... rises from the Andes Mts., flows though Peru and Brazil, and falls into the Atlantic. It is the *largest* river in the world, but its length is exceeded by that of the Nile, and also of the Mississippi, *when the latter is measured from the source of the Missouri.*

The Orinoco
(1,400 miles) ... is a Venezuelan river flowing into the Atlantic.

The Magdalena ... is a river of Colombia flowing into the Caribbean Sea.

The San Francisco ... is a river in the east of Brazil, flowing into the Atlantic.

RIVERS—(Continued.)

The Parana and the Uruguay (2,459 miles, as measured from the source of the Parana)

... are two rivers of Argentina, which by their union form the estuary of La Plata. The towns of Monte Video, Buenos Ayres, and La Plata are situated on the Estuary. The *Paraguay* is a tributary of the Parana. The town of Asuncion stands on this tributary. *yearly communication*

Resources of the Continent:—Brazil is the most fertile country in South America; agriculture is the chief occupation of the people. In Argentina, Paraguay, and Uruguay, cattle and sheep farming is a very important industry; animal products (preserved meat, wool, skins, hides, etc.) are largely exported from these countries. The more important vegetable productions of the continent are:—*Wheat, maize, India-rubber, sugar-cane, cocoa, coffee, cotton, flax, Paraguay tea, tapioca, rice, potatoes, cinchona, tobacco, and the vine.* Wheat is exported largely from Argentina and Chile; sugar from Brazil, Guiana, Peru, etc.; *India-rubber* from Brazil; flax from Argentina; and cinchona from Peru, Bolivia, and Colombia. The continent was formerly considered to be very rich in precious metals, but the later discovery of gold and silver in the United States, Australasia, etc. has thrown South America rather into the background. The *silver* mines of Potosi (in Bolivia), and the *gold* mines of Colombia and Guiana are, however, still of great importance. The *copper* ores of Chile and the *tin* ores of Bolivia are also of great value. Chile exports large quantities of *Chile saltpetre*. Other important exports from Chile are *guano* and *iodine*. *Pearl-fishing* is carried on off the north coast of Venezuela.

Distribution of the principal vegetable products:—

Wheat	... Argentina, Chile, etc.
Maize	... Peru, Argentina, Paraguay, the Guianas, Uruguay, etc.
Rubber	... Brazil, Peru, Paraguay, Bolivia, the Guianas, Colombia, Ecuador, Venezuela.

Sugar-cane	...	Brazil, Peru, the Guianas, Argentina, Ecuador, Paraguay, Venezuela, etc.
Cocoa	...	Ecuador, Peru, Bolivia, Venezuela, the Guianas, etc.
Coffee	...	Brazil, Peru, Ecuador, Paraguay, Bolivia, Colombia, Venezuela, the Guianas, etc.
Cotton	...	Peru, Brazil, Paraguay, etc.
Linseed	...	Argentina, etc.
Flax	...	Argentina, etc.
Paraguay tea		Paraguay, Brazil.
Tapioca	...	Paraguay, Fr. Guiana, etc.
Rice	...	Ecuador, Paraguay, Peru, the Guianas, etc.
Cinchona	...	Peru, Bolivia, Colombia, etc.
Coca	...	Peru, Bolivia.
Vanilla	...	Venezuela.
Tobacco	...	Peru, Paraguay, Uruguay, Fr. Guiana, etc.
The Vine	...	Peru, Argentina, Chile, Uruguay, etc.
Indigo	...	French Guiana, etc.
Plantains	...	Colombia, Dutch Guiana, etc.

Distribution of the principal minerals :—

Gold	Colombia, the Guianas, Venezuela, Chile, Peru, Ecuador, Argentina, Uruguay.
Silver	Bolivia, Peru, Chile, Colombia, Ecuador, Argentina, Venezuela, etc.
Diamonds	Brazil.
Emeralds	Colombia.
Iron	Ecuador, Venezuela, Brazil, etc.
Tin	Bolivia, etc.
Copper	Chile, Peru, Bolivia, Ecuador, Venezuela, etc.
Lead	Ecuador, Peru, etc.
Zinc	Bolivia.
Coal	Ecuador, Peru, Argentina, Chile, etc.
Mercury	Peru, Colombia.
Petroleum	Peru, Ecuador, Argentina, Venezuela.
Chile Saltpetre	Chile, Bolivia.
Platinum	... Colombia, Ecuador.
Antimony	... Bolivia.
Manganese	... Brazil, Chile, Colombia.

Zoology. The *llama* and the *alpaca*, peculiar to the Andes, are the chief native animals. The *jaguar*, the *puma*, and *monkeys* (in the forests of Guiana and Brazil) are the other beasts which deserve special mention. The more remarkable birds are the *condor* (in the most inaccessible parts of the Andes), *eagles*, *vultures*, etc.

Climate. The climate of South America is naturally very varied ; but it is on the whole healthy, and the temperature is generally colder than what could be expected from the position of the continent (*see* p. 121.) This is partly due to the high level of the continent in many parts. The eastern slopes of the Andes are copiously supplied with rain. This is explained by the fact that moist winds constantly blowing over the Atlantic Ocean, from the N. E. in the north of the equator, and from the S. E. in its south, are arrested and cooled by the Andes. These winds are called the *trade-winds*.

CHAPTER VIII.

OCEANIA.

Oceania in its most extended sense includes (see p. 9) the following groups of islands :—

(1) *Australasia*, comprising the islands of Australia, Tasmania, and New Zealand.

(2) *Malaysia*, consisting of (a) the islands of the Malay Archipelago, properly so called, viz., Borneo, Sumatra, Java, Celebes, and some smaller islands; (b) the Philippines, and (c) New Guinea or Papua.

(3) *Polynesia*, comprising the numerous small islands scattered about in the Pacific Ocean.

New Guinea, which is close to Australia and resembles it in many respects, is generally considered to be included under *Australasia*; sometimes, however, New Guinea and even the Philippines are included under the *Malay Archipelago*, the term being used in its widest sense. The term *Oceania* is frequently used in a limited sense, only Australasia and Polynesia (and sometimes also Papua) being taken to be covered by it, and the other islands mentioned before, being considered as Asiatic islands.

We will here notice Australia with Tasmania, New Zealand, New Guinea, and the Polynesian Islands.

AUSTRALIA.

Boundaries. The Island-Continent of Australia is bounded on the north by the Arafura Strait (which separates it from the islands of the Malay Archipelago) and the Torres Strait (which separates it from the island of New Guinea); it is bounded on the east by the Pacific Ocean; on the south by the Great Southern Ocean; and on the west by the Indian Ocean.

Extent. Its greatest length from east to west is 2,300 miles, the greatest breadth from C. York on the north to C. Otway on the south is about 2,000 miles, and the area is nearly 3 millions of sq. miles*.

* It will be remembered that Europe covers an area of about $3\frac{1}{4}$ millions of sq. miles.

DIVISIONS WITH THEIR CAPITALS.

New South Wales	... ..	<i>Sydney</i> (pop. over 4½ lacs).
Victoria	... ..	<i>Melbourne</i> (pop. nearly 5 lacs).
South Australia	(to which is attached the Northern Territory, which is very sparsely inhabited)	
	... ..	<i>Adelaide</i> (pop. 1½ lacs).
Queensland	... ..	<i>Brisbane</i> .
West Australia	... ..	<i>Perth</i> .
Tasmania*	(which is a distinct island separated from Victoria by the Bass Strait)	
	... ..	<i>Hobart</i> .

With the exception of *Perth*, all the capitals are important ports. *Melbourne* is a beautiful city.

SEAS, GULFS, BAYS, etc.

The Coral Sea	... ..	N. E. of the continent.
Tasman Sea	... ..	between the continent and the island of New Zealand.
Timor Sea	... ..	W. of the continent.
G. of Carpentaria	... ..	N. of the continent.
Moreton Bay	... ..	S. E. of Queensland.
Botany Bay	... ..	E. of New South Wales.
Port Philip and Portland Bay	... ..	S. of Victoria.
The Great Australian Bight	... ..	S. of the continent.
Encounter Bay, G. of St. Vincent, and Spencers G.	... ..	S. of South Australia.
Shark Bay	... ..	W. of West Australia.
Cambridge Gulf	... ..	N. of West Australia.

ISLANDS.

Melville I. and Bathurst I.	... ..	N. of the Northern Territory.
Wellesley I.	... ..	in the G. of Carpentaria.
Furneaux I. and Kings I.	... ..	in the Bass Strait.
Kangaroo I.	... ..	S. of South Australia.

* Formerly called Van Diemen's Land.

Torres, Bass, Arafura.

C. York	(the most northern point in the continent), N. of Queensland.
C. Howe	S. E. of New South Wales.
Wilson Promontory and C. Otway	S. of Victoria.
C. Leeuwin	S. W. of West Australia.
Steep Point and North West Cape	W. of West Australia.

Cape York Peninsula ... N. of Queensland.

Ross and Richards Deserts ... W. of S. Australia.
The Great Victorian Desert
and the Great Sandy Desert in S. and N., respectively, of
 West Australia.

L. Torrens and L. Eyre ... in S. Australia.
L. Austin and other smaller
lakes ... in the S. W. of West Australia.

The Mountains of Australia are mostly confined to the eastern and south-eastern parts of the continent, running parallel to the nearest coast lines. The Australian Alps (or Bowen Mts.) and the Blue Mts. are parts of the above chain; the former are situated in the east of Victoria, and the latter in the east of New South Wales. The highest peak of the Alps is Mt. Kosciuske (7,216 ft.).

The Murray rises from the Australian Alps, flows along the northern border of Victoria and through South Australia, and falls into the Encounter Bay. Its most important tributary is the *Darling*.

Australia was discovered in the beginning of the seventeenth century by the Dutch and the Spaniards. In 1787 A.D. the English government sent out a batch of convicts and settled them where now stands the city of Sydney. In course of time it appeared that the continent was well adapted for grazing and the cultivation of wheat; free people from England now began to emigrate to Australia (1824 A.D.). Gold was discovered in the continent in 1851 A.D., and since then immigration into Australia has continued on a much larger scale. The present population of the continent is about 4 millions.

The six divisions (including Tasmania) were formerly so many *distinct* colonies of the United Kingdom without any political union among them; but on January 1, 1901 A.D. they were united into one *Commonwealth* for the better management of affairs in which all the divisions are equally interested. There is a Governor General (representing the British Sovereign) at the head of the Commonwealth. New Zealand has not joined the Commonwealth. The Australian colonies possess the right of *self-government*.

The principal **exports** from Australia are :—*Live animals* (sheep, horses, etc.), *animal products* (wool, frozen and preserved meat, hides and skins, leather, butter, tallow), *gold*, and *wheat*. *Silver, copper, tin, lead, coal, sugar, fruits, timbers, coconut oil, and pearls and pearl shells* are also exported. The present annual out-turn of the gold mines of Australia is surpassed only by that of the Californian mines. *Baxley, oats, maize, potatoes, and the vine* are successfully cultivated. *Bismuth and opal* occur in Queensland.

Zoology. It is remarkable that the native Australian quadrupeds are almost all marsupial or pouched, and that such animals are almost entirely confined to Australia. The chief among them are the *kangaroos* and *opossums*. Many of the birds are famous for the beauty of their plumage. The birds which deserve special mention are :—the *emus* (like the ostrich), *cockatoos, pelicans, and eagles*.

Climate. Dryness is the characteristic quality of the Australian climate; but at the same time it is extremely healthy and is everywhere, except on the north coast, favourable to the European constitution. The northern part is subject to heavy rains between November and April. In other parts, years of complete

drought are not uncommon. The climate of the desert interior is one of the hottest in the world.

NEW ZEALAND.

This group of three islands (the **North Island**, the **South Island**, and the small island known as **Stewart Island**) lie about 1,000 miles to the south-east of the Australian continent. The North and the South Islands are separated by Cook's Strait. The greatest length of the group is about 1,000 miles and the greatest breadth about 200 miles; the area is more than twice that of England. New Zealand is a self-governing colony of the United Kingdom. *Wellington* in the North Island is the seat of government. Other important towns are *Auckland*, in the North Island, and *Dunedin* and *Christ Church* in the South Island. The most well-known peak of the New Zealand Mts. is *Mt. Egmont*, situated in the west of the North Island. The total population is nearly 8 lacs, including about 40,000 Maoris (as the original inhabitants are called), and nearly 3,000 Chinese. The bulk of the population are immigrants from the British Isles. The New Zealand Islands are well suited for grazing. There are valuable forests, and rich mines of *gold*, *silver*, *coal*, and *manganese* in the Islands. The principal exports are:—*Wool*, *frozen meat* and *other animal products*, *gold*, *wheat*, *hemp*, etc.

NEW GUINEA OR PAPUA.

New Guinea is more than $2\frac{1}{2}$ times the size of Great Britain. The western half belongs to the Dutch; of the eastern half, the northern portion belongs to Germany and the southern to Great Britain. The Island is covered with valuable forests containing *sandalwood*, *ebony*, and other trees; *coconut* and *sago palms* are plentiful. New Guinea is the home of the beautiful *bird of paradise*. British New Guinea is a *crown colony* of the United Kingdom, administered by the Commonwealth of Australia. The population is $3\frac{1}{2}$ lacs, including about 250 Europeans. The climate is not healthy. The principal exports are:—*sandalwood*, *pearls*, *gold*, and *copra*.*

* i. e., dried coco-nut kernel.

POLYNESIA.

The Polynesian Islands are either coral or volcanic in origin; the climate is mild; the *bread-fruit*, *coco-nut*, and *fishes* form the staple food of the inhabitants. The most well-known among these islands are :—

The Fiji Islands, belonging to the British and containing large plantations of sugar-cane, which give employment to a large number of labourers from India. The chief exports are :—*Sugar*, *bananas*, and *copra*.

New Caledonia, the Marquesas Isles, and the Society Isles (the chief among which is *Tahiti*), belonging to the French. **The Loyalty Islands** are dependencies of New Caledonia. The principal agricultural products of New Caledonia are :—*Coffee*, *maize*, *tobacco*, *sugar*, *grapes*, *tapioca*, and *pine-apples*. New Caledonia is famous for extensive mines of *nickel*, *cobalt*, *chromium*, and *copper*. *Coconuts*, *bananas*, *orange*, and *sugar-cane* are cultivated in Tahiti and the Marquesas Isles, and *vanilla* and *mother of pearl* are exported from them.

The Hawaiian or Sandwich Islands including, among others, *Hawaii* where Captain Cook was killed, and *Oahu* in which is situated the capital *Honolulu*. This station is of some importance as it lies in the steamer route between Australia and the United States of America. The Sandwich Islands were annexed to the United States in 1898 A. D. The products are :—*Sugar*, *rice*, *coffee*, *bananas*, and *pine-apples*.

The Friendly Islands, so called from the friendly treatment received by Captain Cook from the native inhabitants. They have been British protectorates since 1900 A. D. *Copra* and *bananas* form the chief exports.

The New Hebrides, which are under the authority of a joint commission of British and French naval officers.

Caroline Islands, which are German protectorates.

Samoa or Navigator's Islands, the two largest among which are also German protectorates. Some of the Samoa Is. belong to the United States of America.

The Ladrões, the largest among which was ceded by Spain to the United States of America in 1898 A. D.

CHAPTER IX.

THE WORLD.

The Oceans. If you will look at the map of the world, you will find that America is separated from Europe and Africa by the Atlantic Ocean, and from Asia by the Pacific Ocean. The Pacific lies to the east of Asia and to the west of America; the Atlantic is situated to the west of Europe and Africa, and to the east of America. There is regular steamer service across the Atlantic between Liverpool and other ports of western Europe and New York, the distance between being 3,000 miles or more. The distance across the Pacific from the port of Yokohama (in Japan) to San Francisco, the chief western port of the United States, is 4,755 miles.

The Indian Ocean lies to the south of Asia, between Africa on the west and Australia on the east.

The Great Southern Ocean extends from the south of Australia, Africa, and South America, to the circle marked on the globe as the Antarctic Circle (*see* p. 120). The Antarctic Ocean extends southwards from the Antarctic Circle. The Arctic Ocean extends northwards from the north of Asia, Europe, and America. The last two oceans have not been explored to any great extent as yet.

The North-West Passage. Behring Strait connects the Arctic Ocean with the Pacific, and separates Asia from America. Numerous attempts were made, chiefly by the British, to discover a route from Great Britain to the eastern countries of Asia through the Arctic Seas lying to the north of N. America, and Behring Strait. The passage which was discovered by McClure in 1850-1 A. D., is called the North-West Passage, but as it is blocked with ice almost all the year round, it has not been of any use to commerce. Several unsuccessful attempts have of late years been made to reach the North Pole; among these the balloon-expedition of Andree, and Nansen's voyage in the *Fram* may be mentioned. Andree never returned, and is believed to have perished.

The South Polar Expeditions. *Victoria Land* was discovered by Sir James Ross in 1840-3 A.D. Gigantic glaciers, behind which were high mountains, stopped his

progress. The active volcano *Erebus* (12,400 ft. high) is a summit of these mountains. Quite recently (1901 A.D.) the steam-vessel *Discovery*, equipped by the Royal Geographical Society of London, set out to explore the area as close to the South Pole as possible. The time for her return has not yet arrived, but the *Morning* has been despatched (1902 A.D.) with fresh supplies to meet her.

The Panama Canal. North America and South America are united by the Isthmus of Panama. Should a canal be dug across this Isthmus, the Atlantic and the Pacific would be united. A rival project aimed at connecting L. Nicaragua, by means of canals, with these two oceans. It is now decided that the United States of America will carry out the project of digging a canal across the Isthmus of Panama.

The Suez Canal. Asia and Africa are united by the Isthmus of Suez. Before 1869 A.D. there was no communication between the waters of the Mediterranean Sea and the Red Sea. A canal, called the Suez Canal, however, was constructed, connecting the Red Sea with the Mediterranean, and was opened for navigation in November, 1869 A.D. Before the opening of this canal, vessels sailing between England and India had to go round the Cape (of Good Hope), but since the opening of the canal they have been mostly following the much shorter route through it. The mails from India to England are carried by steamers from Bombay through the Red Sea and the Suez Canal, (generally) to the town of Brindisi on the east coast of Italy, and thence by rail to the town of Calais on the northern coast of France, whence they are ferried over to England across the English Channel.

LARGE ISLANDS, LAKES, RIVERS, ETC.

The largest inhabited islands in the world are:—*Australia, New Guinea, Borneo, Madagascar, Sumatra, Great Britain, Nippon* (in the Japanese Archipelago), &c.

Obs. The island of Greenland is probably next to *Australia* in size; how far it extends towards the north is yet to be discovered. The population is small.

The largest lakes are:—*Caspian Sea,* Lake Superior,*

* See p. 44.

Victoria Nyanza, Sea of Aral, Lake Tanganyika, Lake Michigan, and Lake Chad.*

The longest **rivers** are :—

	Miles.		Miles.
Mississippi (measured ...		Yenisei ...	... 3,400
from the source of ...		Yang-tse-kiang	... 3,000
the <i>Missouri</i>)	... 4,200	Congo ...	... 3,000
Nile ...	... 4,100	Amur ...	... 2,900
Amazon ...	... 4,000	Hoang-Ho	... 2,720
Mississippi ...	... 3,400	Obi ...	... 2,600
Niger ...	... 2,500	Mackenzie ...	... 2,300
La Plata (measured ...	... 2,459	St. Lawrence	... 2,000
from the source of the		Danube ...	... 2,000
Parana)		Zambesi ...	... 2,000
Volga ...	... 2,400	Indus ...	... 1,800
Lena ...	... 2,400	Euphrates	... 1,800
Ganges ...			... 1,557 miles.

The highest **peaks** are :—

In Asia :—

Mt. Everest	29,002 ft.	Dhawalagiri	... 27,000 ft.
Kanchinjanga	28,815 "	Demavend	... 19,000 "
Mt. Godwin-Austen (the		Ararat ...	... 16,916 "
highest peak of the			
Hindu-Kush)	... 28,250 "		

In Europe :—

Mt. Elburz (a peak		Mont Blanc	... 15,791 ft.
of the Caucasus		Mt. Rosa	... 15,217 "
Mountains)...	... 18,572 ft.		

In Africa :—

Kilimanjaro	... 19,200 ft.
Kenia ...	... 18,000 ft.

See page 44.

In North America :—

Mt. Logan	... 19,530 ft.	... in Canada.
Mt. St. Elias	... 18,100 „	} in Alaska Territory.
Fairweather	... 16,000 „	
Orizaba	... 18,300 „	} in Mexico.
Popocatepetl	... 17,600 „	

In South America :—

Peaks of the Andes.	Aconcagua	... 23,400 ft.	... in Chile.
	Sorata	... 21,286 „	... in Bolivia.
	Chimborazo	... 20,475 „	} in Ecuador.
	Cotopaxi	... 19,613 „	
	Antisana	... 19,336 „	

THE GREAT CITIES OF THE WORLD.

With population, over one million :—

1. London	... 4,536,063	7. Tokio	... 1,440,121
2. New York (with its suburbs)	... 3,437,202	8. Philadelphia	... 1,293,697
3. Paris	... 2,660,559	9. St. Petersburg	... 1,267,023
4. Berlin	... 1,888,326	10. Constantinople	... 1,125,000
5. Chicago	... 1,698,575		
6. Vienna	... 1,674,957		

N. B. The population of **Pekin** is supposed to exceed one million, and that of **Canton** is estimated at between 8 and 16 lacs.

With population, between 6 lacs and 10 lacs :—

Moscow	... 988,614	Rio Janeiro	750,000
Calcutta	... 847,796	Glasgow	735,906
Buenos Ayres	836,381	Buda-Pest	732,322
Osaka	... 821,235	Hamburg	705,738
Brooklyn (one of the suburbs of New York)	... 806,343	Liverpool	684,947
Bombay	... 770,843	Warsaw	638,209

N. B. The population of **Tientsin** is supposed to be between 7 and 9 lacs; that of **Hankow** 8 lacs, and of **Foochoo** 6½ lacs.

With population, between 5 and 6 lacs :—

Bangkok	600,000	Birmingham	522,182
Saint Louis	575,238	Amsterdam	520,602
Cairo	570,062	Rome	512,423
Naples	563,731	Madrid	512,150
Brussels	561,782	Barcelona	509,589
Boston	560,892	Madras	509,397
Manchester	543,969	Baltimore	508,957

N. B. The population of **Shanghai** is supposed to be between $3\frac{1}{2}$ and 6 lacs.

CHAPTER X.

THE GLOBE.

SECTION I.

LATITUDE AND LONGITUDE.

The study of the surface of the earth is greatly helped by the use of a school-globe which is taken to represent the earth though, of course, on a very small scale. The continents, the oceans, the seas, the various countries, and the larger cities, islands, rivers, &c. are all represented on the surface of the globe. The poles of the earth are represented by two points properly selected (*see* page 6) on the surface of the globe; the line joining these points will then be a diameter of the globe and will represent **the earth's axis**. The globe is supported at the above points, so that it is capable of being rotated round the diameter joining them. The **equator** is represented by a circle going round the globe, drawn midway between the poles.

The equator is, however, not the only circle marked on the globe. There are other circles (called **the meridians**) which pass through each of the two poles. These intersect the equator at right angles and divide it into so many equal parts. On each side of the equator, again, there are circles parallel to the equator, *i.e.*, at the same distance from it all round, dividing the portions of the meridians intercepted between the equator and each pole into so many equal parts. These circles are called **parallels of latitude**, and they gradually grow smaller and smaller as they approach either pole. The meridians and parallels of latitude are for the purpose of determining the exact position of a place upon the globe.

If we divide the circumference of any circle into 360 equal parts, each part is called an arc of 1 degree, or simply a degree (written $^{\circ}$); the degree is divided into 60 equal parts, each part being called a minute (written $'$), and the minute is again divided into 60 equal parts, each part being called a second (written $''$).

An indefinitely large number of meridians and parallels of latitude may be drawn on the globe, but to avoid disfiguring the surface of the globe only a limited number of them are always drawn on it. On a small school-globe meridians are usually so drawn as to divide the equator into 36 equal parts, each division representing 10 degrees. The meridians are thus drawn 10° apart from each other. Similarly on a school-globe parallels are so drawn that they divide the portions of the meridians lying between the equator and either pole into 9 equal parts, each division on any meridian representing 10 degrees. The parallels also are therefore drawn 10° apart from each other. All places situated on the first parallel above the equator are 10° north of the equator; those lying on the 2nd parallel above the equator are 20° north of the equator; those lying on the parallel which we may imagine to be drawn (although it is not actually drawn on the globe) midway between the 1st and the 2nd parallels, are 15° north of the equator. The North Pole is 90° north, and the South Pole 90° south, of the equator.

If you examine the meridians drawn on the globe you will notice that one of them passes through **Greenwich** (a place near London and the seat of the principal English observatory). This meridian intersects the equator at a point situated to the west of Africa, in the Atlantic Ocean. You will find that this point of intersection is marked zero on the globe. The points of intersection of the equator with the meridians drawn on a school-globe being 10° apart from each other, those lying to the east of the zero point are marked 10°, 20°, 30°, &c. up to 180°. The points of intersection of the equator with the meridians drawn to the west of the meridian through Greenwich are similarly marked 10°, 20°, 30°, &c. up to 180°. It is obvious that the point situated 180° to the east of the zero point is the same as that lying 180° to the west of the zero point.

Let us now understand how the position of any place on the globe is determined. Suppose we want to fix the position of St. Petersburg, the capital of the Russian Empire. You will find that it is situated on the meridian drawn 30° to the east of the zero point, and that its distance from the equator measured on that meridian is 60° towards the North Pole. There are indeed a very large number of places on the globe all of which lie on the particular meridian on

which St. Petersburg is situated ; and likewise, there are a very large number of places the distances of all of which from the equator towards the North Pole are 60° ; but there is no other place on the globe but St. Petersburg which lies on that *particular meridian at a distance of 60° from the equator towards the North Pole*. Thus the position of St. Petersburg is determined.

The **Latitude** of a place is the distance of the place north or south of the equator, measured, in degrees, along the meridian passing through that place. Thus the latitude of St. Petersburg is 60° N.

The **Longitude** of a place is the distance of the place east or west from a fixed meridian,* measured, in degrees, along the equator. The meridian passing through Greenwich is taken as the fixed meridian by English geographers and is called the **Prime Meridian**. Thus the longitude of St. Petersburg is 30° E.

It is by means of the *latitude* and the *longitude* of a place that its position on the earth is fixed. Thus the position of St. Petersburg is defined by stating that its latitude is 60° N, and longitude 30° E.

SEC. II.

THE ZONES.

The Zones. In addition to the equator, the meridians, and the parallels already described, there are drawn on the globe four other parallels. The parallel drawn $23\frac{1}{2}^\circ$ to the north of the equator is called the **Tropic of Cancer** ; the one drawn $23\frac{1}{2}^\circ$ to the south of the equator is called the **Tropic of Capricorn** ; that one which is drawn $23\frac{1}{2}^\circ$ to the south of the North Pole or in other words $66\frac{1}{2}^\circ$ to the north of the equator is called the **Arctic Circle** ; and lastly the one drawn $23\frac{1}{2}^\circ$ north of the South Pole or in other words $66\frac{1}{2}^\circ$ south of the equator is called the **Antarctic Circle**. These four parallels divide the earth into five belts or **Zones** characterised by different temperatures. The belt lying

* It is obvious that any meridian may be taken as the *fixed meridian* ; e.g., the French measure longitude from the meridian passing through Paris.

between the Tropic of Cancer and the Tropic of Capricorn is called the **Torrid Zone**. The Zone lying between the Tropic of Cancer and the Arctic Circle is called the **North Temperate Zone**, and that lying between the Tropic of Capricorn and the Antarctic Circle is called the **South Temperate Zone**. The belt of the earth extending from the Arctic Circle to the North Pole is called the **Arctic or North Frigid Zone**, and that extending from the Antarctic Circle to the South Pole is called the **Antarctic or South Frigid Zone**.

The path in which the sun, in its annual motion, *appears* to move round the earth, lies directly above the regions situated within the limits of the Torrid Zone ; so the heat must be very intense in these regions. In the two Temperate Zones, the sun is never seen directly overhead, and consequently the heat in these zones cannot be so intense as that in the Torrid Zone. For a considerable part of the year, the sun disappears entirely from view within the limits of the North Frigid Zone. The climate in this zone is therefore intensely cold, and the land and sea are usually covered with ice. The state of things is similar in the South Frigid Zone.

It will be seen that the temperature falls as we pass from the equator to either pole. But it should be remembered that the distance from the equator is not the only circumstance which determines the temperature of a place. The temperature of a place depends also (*a*) on its height above the sea level, (*b*) its distance from the sea, (*c*) the direction of the prevailing winds (*see* pp. 41 and 99), (*d*) proximity of warm or cold oceanic currents (*see* pp. 41 and 99), etc. The effect of high elevations is to lower the temperature, and that of nearness of the sea is to prevent extremes of temperature (*see* p. 41).

CHAPTER XI.

RACES OF MEN, etc.

Men of science who have studied the languages and the physical characteristics of the various peoples inhabiting the world have found it possible to classify these peoples under six heads. You feel no difficulty in distinguishing (a) an Englishman, or an Armenian, or a gentleman of Upper India (each of whom is characterised by an oval head and what we call regular features), from (b) a Chinese or a Burmese (with his yellow skin, flattened skull, oblique eyes, and scanty hair on the face), or from (c) a Negro with his dark skin, woolly hair, thick lips, and flat nose. So again, the people of the East Indian or Malay Archipelago with their brown skin, narrow head, large mouth, and black stiff hair may be at once distinguished not only from the above three classes of people, but from the aboriginal inhabitants of America with their peculiar copper-red skin, as also from the aboriginal inhabitants of Australia with their dark skin and bushy hair.

Thus mankind has been divided into six different races:—

(1) The **Caucasian** or the White race, who occupy Europe (except Lapland, Finland, parts of Hungary and Turkey-in-Europe, etc.), the south and south-west of Asia (including Turkey, Arabia, Persia, Afghanistan, Baluchistan, and Upper India), the north of Africa, and the parts of America, Africa, Asia, Australia, Tasmania, and New Zealand colonized by Europeans.

(2) The **Mongolian** or the Yellow race, who occupy the Chinese Empire (including Tibet), Japan, Siberia, Burma and most other parts of the Trans-gangetic Peninsula, parts of India, Lapland, Finland, parts of Hungary and Turkey-in-Europe, and Greenland.

(3) The **Malayan** or the Brown race, who occupy the Malayan Peninsula, the Malayan Archipelago, the Polynesian islands, and Madagascar.

(4) The **American** or the Red race, who occupy the whole of America excepting Greenland and a few other places in the extreme north.

(5) The **Negro** or the Ethiopian or the Black race, who occupy most parts of Africa.

(6) The **Australian** race, who occupy Australia and some of the neighbouring islands.

In addition to the six principal races, there are mixed types also. Thus, the people of the Madras Presidency represent what is called the Dravidian type.

The original inhabitants of Lapland, Finland, certain parts of Hungary, the Pyrénées, Greenland, and New Zealand are called the Lapps, the Finns, the Magyars, the Basques, the Esquimaux, and the Maoris, respectively. None of these belongs to the Caucasian race.

With regard to the languages used by the different nations belonging to the Caucasian race, it is to be observed that the languages of Europe, Upper India, and Persia resemble one another more closely than they do those used by the Jews and the Arabs (Hebrew and Arabic, respectively). The former tongues are said to belong to the Indo-European or the Aryan family of languages, and the latter to the Semitic family. The peoples using the Aryan family of languages are sometimes collectively called the Aryan community. It is believed by certain scholars that their original home some 5,000 or 6,000 years ago was Central Asia, near the sources of the Jaxartes and the Oxus. Of the six different races of mankind the Caucasian race is the most civilized and powerful.

A few languages still current in India and in Europe do not belong to the Aryan family; such are, in India—Tamil, Telugu, Sonthal, etc.; and in Europe—Turkish, Hungarian, Lappish, Basque (spoken in parts of France and Spain), &c.

Principal Religions of the World. The principal religions prevailing in the world are:—**Christianity, Buddhism, Hinduism, and Muhammadanism.** Christianity is the prevailing religion in Europe and in the regions colonized largely by Europeans (*e. g.* America, Australia, Cape Colony, Algeria, etc.). Buddhism prevails in China, Tibet, Japan, Further-India, etc. Hinduism is professed by a majority of the natives of India. Muhammadanism prevails in the south-western countries of Asia, in Turkey-in-Europe, and in the north and north-east of Africa. In India also, the population is largely Muhammadan.

CHAPTER XII.

EXTENT AND POPULATION OF THE BRITISH EMPIRE
AND COMMERCE OF THE UNITED KINGDOM.

SECTION I.

Extent and population of the British Empire.

	Area in Sq. miles.	Population.
The United Kingdom ...	120,979	41,454,621

COLONIES—

In Europe :—

Gibraltar
Malta and Gozo

In Asia :—

Ceylon	25,333	3,576,990
Aden and Perim		
Hong-kong		
Labuan		
The Straits Settlements		

In Africa :—

(Cape Colony	276,775	2,350,000
Transvaal Colony	119,140*	1,094,100*
Orange River Colony	48,330	207,500
Natal	29,200*	929,970*
Gold Coast	40,000	1,473,900
Gambia		
Lagos		
Sierra Leone		
Basutoland		
Mauritius		

* A portion of the Transvaal has recently been transferred to Natal. These figures refer to the period before the transfer.

In Africa (continued) :—

Ascension

St. Helena

/ Seychelles }

In America :—

/ Canada ...	...	3,048,710	5,369,666
/ Jamaica and Turks Is. /	...	4,430	758,800
/ Newfoundland and Labrador /	...	162,200	210,000
X British Guiana ... X	...	120,000	288,170 X
X Trinidad and Tobago			
/ British Honduras			
/ Bahamas			
/ Barbados			
/ Bermundas			
/ Leeward Is.			
/ Windward Is.			
X Falkland Is. X			

In Australasia :—

Australia and Tasmania	..	2,972,573	3,767,443
New Zealand	104,471	772,719
British New Guinea	90,540	350,000

In Polynesia :—

Fiji Is.	7,740	117,870
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DEPENDENCIES AND PROTECTORATES—

British India	985,000	231,085,132
Native States in India under			
British Protection ...	...	655,695	63,181,569
Other protectorates in Asia ...	...	120,400	1,200,000
Protectorates in Africa ...	...	2,160,000	35,000,000
Protectorates in Polynesia.			

Total, 11,137,213 396,105,693

Remembering that the land-surface of the earth is about 52 millions of sq. miles, and its population about 1,500 millions, it will be seen that the British Empire includes within

north america

X

the

its limits more than a fifth part of the land-surface, and more than a fourth of the whole population, of the world.

SECTION II.

COMMERCE OF THE UNITED KINGDOM.

The principal **exports** from the United Kingdom, in 1901 A.D., with their values, were as follows :—

Cotton manufactures (including yarn)	...	110 crores of Rs. (<i>To India, 26 crores.</i>)
Woollen manufactures (including yarn)	...	29 crores. (<i>To India, 1 crore.</i>)
Linen manufactures	...	nearly 9 crores.
Jute manufactures ...	...	over 4 crores.
Apparel and haberdashery	...	10½ crores.
New ships	...	13¾ crores.
Iron and steel	...	38 crores. (<i>To India, 4½ crores.</i>)
Copper	...	5¼ crores. (<i>To India, 1 crore.</i>)
Machinery	...	27 crores. (<i>To India, about 3 crores.</i>)
Hardwares and cutlery	...	3 crores.
Coals and other fuels...	...	45½ crores.
Chemicals ...	...	13½ crores.

In 1900 A. D. the total value of **exports*** approached £280,500,000 (*i. e.* over 420 crores of Rs.). The largest exports were made to India (£30 millions), Germany (£27 millions), Australasia (£27 millions), France (£20 millions), and the United States of America (£19½ millions).

The total value of **imports*** for the same year was, however, vastly larger, being £522,239,000 *i. e.*, nearly twice the value of the exports. To this vast amount the United States of America contributed £138¾ millions, France £53½ millions, Holland £31 millions, Germany £31 millions, India 30 millions, and Australasia £27 millions. The articles imported most heavily and the countries from which they are imported, will be seen from the following table.

* Total value of exports from the United States of America
(1900 A. D.) was £304 millions.

"	"	imports into	"	"	was £171 "
"	"	exports from Germany (1900 A.D.)	was £238 mills.		
"	"	imports into	"	"	was £208 mills.
"	"	exports from France	"	"	was £164 mills.
"	"	imports into	"	"	was £188 mills.

TABLE OF PRINCIPAL IMPORTS INTO THE UNITED KINGDOM.

N.B.—U. S. stands for the United States of America. The figures within brackets represent crores of Rupees, unless where otherwise stated.

Wheat (including wheat flour) ...	U. S. (29), Argentina (9), India [1898 A.D. (5), 1900 A.D. $\frac{1}{2}$ lac*], Canada (4), Russia ($2\frac{1}{4}$), S. Australia and Victoria ($1\frac{1}{2}$), Austria-Hungary (1), Germany (1).
Barley	U. S. (2), Turkey (2), Russia (nearly 2).
Maize	U. S. ($12\frac{3}{4}$), Argentina ($2\frac{1}{4}$), Canada ($1\frac{1}{2}$), Roumania (90 lacs), Russia (nearly $\frac{3}{4}$).
Oats	Russia (4), U. S. ($2\frac{1}{4}$).
Rice	India (nearly $2\frac{1}{2}$).
Sugar †	Germany ($13\frac{3}{4}$), France (8), Holland ($2\frac{1}{2}$), Belgium (2), U. S. ($1\frac{1}{2}$), Br. W. Indies ($\frac{1}{2}$); also, Austria-Hungary, Peru, Philippines, Java [1900 A.D. (13 lacs), 1882 A.D. ($4\frac{1}{2}$)], Mauritius, Egypt ($4\frac{1}{2}$ lacs).
Tea ...	India ($8\frac{1}{2}$), Ceylon (6), China [1900 A.D. (1), 1890 A.D. (4)].
Coffee ...	India (60 lacs), Colombia (25 lacs), Brazil ($13\frac{1}{2}$ lacs), Ceylon [1900 A.D. ($6\frac{1}{2}$ lacs), 1879 A.D. ($4\frac{1}{2}$)].
Cocoa ...	Br. W. Indies (1), through Holland (70 lacs), from Ecuador (17 lacs), Brazil (16 lacs).
Fruits ...	Spain ($5\frac{1}{2}$), Greece ($2\frac{1}{2}$), Turkey ($1\frac{1}{4}$), Italy (nearly 90 lacs), Canada (64 lacs); also, Portugal, Morocco, the Straits Settlements, Tasmania, Br. W. Indies.
Spices ...	The Straits Settlements (nearly 1); also, Br. W. Indies, Ceylon (cinnamon).
Wine ...	France (4), Portugal ($1\frac{1}{2}$), Spain (1); also, Italy (chiefly through France).
Brandy ...	France ($1\frac{3}{4}$).
Live Animals (chiefly sheep and oxen) ...	U. S. ($9\frac{1}{2}$), Canada ($2\frac{3}{4}$), Argentina [1900 A.D. (1), 1899 A.D. (2)]; also, Denmark.

* The fall was due to a famine in India in this year.

† Formerly India used to export large quantities of sugar; now she has to import the article heavily.

Frozen meat	U. S. (9), New Zealand ($4\frac{3}{4}$), Argentina ($2\frac{1}{2}$), Holland ($2\frac{1}{4}$), Australia (nearly 2); also, Denmark.
Preserved meat	Australia (90 lacs).
Eggs ...	Russia ($1\frac{1}{2}$), Germany ($1\frac{1}{2}$), Denmark ($1\frac{1}{4}$), France ($1\frac{1}{4}$), Belgium (1).
Fish ...	Canada (nearly $1\frac{1}{2}$), Norway (80 lacs); also, Portugal, Denmark.
Butter ...	Denmark (12), France ($2\frac{1}{2}$), Australia ($2\frac{1}{2}$), Holland (2), Sweden ($1\frac{1}{2}$), Russia ($1\frac{1}{2}$), New Zealand ($1\frac{1}{4}$).
Margarine*	Holland (nearly $3\frac{1}{2}$).
Hams and Bacons	U. S. (nearly 17), Denmark ($4\frac{1}{2}$), Canada ($2\frac{1}{4}$).
Lard	U. S. ($4\frac{1}{2}$).
Tobacco	U. S. ($5\frac{1}{4}$); also Philippines, Cuba.
Cotton	U. S. (45), Egypt ($13\frac{1}{2}$), India (1), Brazil (1
„ manufactures	Belgium ($2\frac{1}{2}$), Holland ($1\frac{3}{4}$), Germany ($1\frac{1}{2}$).
Wool	Australia (17), New Zealand ($7\frac{1}{4}$), Cape Colony ($2\frac{1}{4}$), Turkey ($1\frac{1}{2}$), India ($1\frac{1}{4}$).
Woollen Yarn ...	Belgium ($1\frac{1}{2}$).
Wool and woollen manufactures ...	Germany (2).
Woollen manufactures	France (7), Holland ($3\frac{3}{4}$).
Silk (raw)	China (1).
„ manufactures (including lace)	France (over 17), Holland ($2\frac{1}{2}$), Belgium ($2\frac{1}{4}$), Japan (nearly $\frac{1}{4}$).
Flax (including linen yarn)	Russia ($2\frac{1}{4}$), Belgium (2).
Hemp	Philippines (2); also, China, Italy, New Zealand, Russia.
Hides, Skins, and Furs	India (2), Australia (1), Cape Colony (64 lacs); also, China, New Zealand, Canada, Italy, Argentina, Russia, Natal, The Straits Settlements, Denmark, Morocco.

* An artificial imitation of butter obtained usually from lard.

Leather and its manufactures	...	U. S. ($4\frac{1}{2}$), India ($4\frac{1}{4}$), France (3), Holland ($1\frac{3}{4}$), Australia (85 lacs).
Tallow	...	Australia ($1\frac{1}{2}$), New Zealand ($\frac{3}{4}$); also, Argentina.
Timber and Wood	...	Russia ($9\frac{1}{4}$), Sweden (9), Canada (8), U. S. ($6\frac{1}{2}$), Norway (3), Germany ($2\frac{1}{4}$), India (1); also, W. Australia, Austria-Hungary.
Cotton seeds	...	Egypt ($3\frac{1}{2}$); also, Brazil.
Linseed	...	Russia ($1\frac{1}{2}$), Argentina (1).
„ and other oil-seeds	...	India ($3\frac{1}{2}$).
Coconut-oil	...	Ceylon (32 lacs); also, India, Australia.
Olive-oil	...	Spain (36 lacs); also, Italy.
Palm-oil	...	Western Africa.
Oil-cake	...	U. S. ($1\frac{3}{4}$), Russia (60 lacs).
Rubber	...	Brazil ($6\frac{1}{2}$), the Straits Settlements ($\frac{1}{4}$); also, Africa, India.
Guttapercha	...	The Straits Settlements (2); also, Venezuela.
Paper fibres	...	Algeria ($\frac{1}{2}$), Spain (40 lacs).
Other paper-making materials	...	Norway (2).
Paper and its applications	...	Holland ($1\frac{1}{2}$), Norway (1).
Cork	...	Portugal (70 lacs); also, Spain.
Indigo	...	India [1900 A.D. (68 lacs*), 1896 A.D. (over 2)].
Opium	...	Turkey (46 lacs); also, Persia.
Ostrich feathers	...	Cape Colony ($1\frac{1}{4}$).
Ivory	...	Africa.
Pearls	...	Bahrein Is., etc.
Glass manufactures	...	Belgium ($1\frac{3}{4}$), Germany ($1\frac{1}{2}$).
Toys and Musical Instruments	...	Germany (2).

* The fall is due to competition of artificial indigo manufactured in Germany.

Matches ...	... Sweden (40 lacs) ; also, Norway.
Diamonds ...	... Cape Colony, the Transvaal and Orange River Colonies (through Cape Colony).
Gold (including ores) ...	... Australia, Tasmania, and New Zealand ; U.S. (California and Alaska), the Transvaal (through Cape Colony), India, British Guiana, Canada.
Silver (including ores)...	... U. S, Chile, Spain ; also, South Australia, Tasmania, Peru, etc.
Copper (includingores)...	... U. S. (3), Spain(3), Chile (2¼), Australia (2), Cape Colony (90 lacs) ; also, Japan, Peru, Portugal.
Iron (including ores), and Steel ...	... Spain (9), Sweden (1¼), U. S. (1½).
Iron and Steel manu- factures ..	... Belgium (2¼), through Holland (2), from Germany (1½).
Tin ...	... The Straits Settlements (5), Australia (60 lacs) ; also, Chile.
Lead (including ores) ...	... Spain (2¼), Australia (1½), etc.
Zinc (including manu- factures) ...	... Holland (1¼), Germany (70 lacs), etc.
Zinc ores ...	... Italy (12 lacs), Greece (3 lacs).
Mercury ...	... Spain (36 lacs).
Manganese ...	... Brazil (30 lacs).
Petroleum ...	... U. S. (5½), Russia (2½), Roumania (12 lacs).

PART II.

CHAPTER XIII.

INDIA

INCLUDING BURMA AND BRITISH BALUCHISTAN.

Boundaries. India is bounded on the north by the Himalaya Mts., Chinese Turkistan, and the Karakoram Mts. ; on the west by Afghanistan, Baluchistan, and the Arabian Sea ; on the south by the Indian Ocean ; and on the east by the Bay of Bengal, Siam, R. Mekong, and China, the three last forming the eastern boundaries of Burma—the eastern-most province of the country.

Area and population. See p. 59. The greatest length from north to south is about 2,000 miles, and that from east to west is about 2,500 miles.

Natural features. India (proper) divides naturally into three parts :—(1) **The Himalayan Regions.** The Himalayas, which are the highest mountains in the world, rise abruptly from the plains, and stretch along the northern frontier for a distance of about 1,500 miles, forming the mountainous territories of Kashmir, Nepal, Bhutan, etc. (2) **The Plain of Northern India or Hindusthan.** It stretches from the foot of the Himalyan regions down to the northern slopes of the **Vindhya Hills**, which (with their extensions the Mirzapur, Chota Nagpur, and Rajmahal Hills) cross the middle of India from west to east. It is a great, almost unbroken, plain with a gentle slope from the north-west to the south-east, and is noted for its fertility (with the exception of Rajputana and parts of Sind). This extensive region is well watered by the Indus, the Ganges, and the Brahmaputra, and their tributaries. The area between the Ganges and its tributary the Jumna is called a **doab** (*i.e.*, land between two rivers). At the foot of the Himalayas there are wet and unhealthy forest-tracts known as the **Terai**. The Ganges enters the sea in two main streams *viz.*, the Padma and the Hooghly. The **delta** thus formed is a vast area of uncommon fertility. Its lowest part is

called the Sundarbans because it contains forests * of *sundri* trees. The Sundarbans consist of a great cluster of marshy islands, being cut up by a large number of branches issuing from the main streams of the Ganges and by numerous salt water creeks. (3) The Deccan or the Indian Peninsula. It is an elevated plateau (elevation, 32,000 to 4,000 ft.), nearly triangular in shape, and sloping from west to east. The Godavari, the Krishna, the Kaveri, etc., flow down this slope. The western and eastern parts of the plateau terminate respectively in the Western and Eastern Ghats which run parallel to their nearest coast-lines. The Western Ghats have their steep face west, and run at distances of 30 to 40 miles from the western coast. There is a prominent depression in the Western Ghats, where the elevation is only about 1,000 ft.; this has been utilised for the construction of a railway line from the Madras side to the town of Calicut on the western coast. This opening is known as the Gap of Coimbatore or Palghat Gap. The Eastern Ghats are neither so high nor so continuous as the Western, and are at considerable distances from the eastern coast. The name Deccan is sometimes restricted to the plateau south of the Tapti, the high lands lying between this river and the southern limits of Hindusthan being called the *Plateau of Malwa*. The table-lands known as the Central Provinces and Chota Nagpur, and the hill-tracts of Orissa, may be regarded as eastern extensions of the above plateau. It will be noticed that the valleys through which the Nerbudda and the Tapti flow, slope in a direction contrary to that in which the Mahānadi, the Godavari, the Krishna, etc., proceed towards the sea.

India possesses no good harbours, except those of Bombay and Karachi. The coast-lines of the Indian Peninsula are almost unbroken. The ports on the Coromandel Coast (*i.e.*, the eastern coast from Palk Strait to the mouth of the Krishna) are merely open road-steads; nor is there any considerable port on the Malabar Coast (*i.e.*, the western coast from C. Comorin to about $12\frac{1}{2}^{\circ}$ N.L.).

* For the other forest regions—see p. 147.

The north-west of India is mountainous and the north-east hilly. The principal mountains in the N. W. are the Hindu Kush, Safed Koh, Suliman, and Hala; the most frequented passes in the N. W. are the Khaibar Pass (leading to Cabul), and the Bolan Pass (leading to Quetta and thence to Candahar). The most well-known pass in the north is the Karakoram Pass, leading from Kashmir to Chinese Turkestan. There are routes also from Sikkim into Tibet, and from the extreme east of Assam into Upper Burma.

Burma is intersected by several mountain-chains, running nearly N. to S., with fertile valleys between. The most important chains are the Arakan Yoma and the Pegu Yoma; the fertile valley of the Irawady lies between them.

Mountains, rivers, etc. To those given on pp. 46-53 the following may be added :—

Mountains and Hills. The Safed Koh, the Suliman, and the Hala Mountains, in the north-west; the Aravalli Hills in Rajputana; the Satpura Mountains between the rivers Nerbudda and Tapti; Parasnath Hill in Chota Nagpur; the Patkai Range (with its extensions the Naga Hills, the Khasi and Jaintia Hills, and the Garo Hills) in Assam; Chittagong Hills in the east of Bengal; Lushai Hills in the east of Bengal and in Burma; the Arakan Yoma, the Pegu Yoma, and the Tenasserim Yoma, in Lower Burma. X

Rivers. The *Subarnarekha*, the *Baiturni*, and the *Brahmani*, in Chota Nagpur and Orissa; the *Damodar* in Chota Nagpur and Bengal; the *Rupnarain* in Bengal; the *Pennar* in the Deccan; and the *Sittang* in Burma.

The *Ramganga*, the *Gumti*, the *Gogra*, the *Bagmati*, the *Kosi*, and the *Sone* are tributaries of the Ganges. The *Chambal* is the most important tributary of the Jumna, the *Tungabhadra* of the Krishna, and the *Chindwin* of the Irawady. The tributaries of the Indus are the *five rivers*—the *Sutlej*, *Beyas*, *Ravi*, *Chenab*,

and *Jhelum*, which have given the Punjab (*i.e.*, the land of five waters) its name, and the *Cabul*.

Capes. *Palmyras Point*, *False Point*, and *Calimere Point*, on the eastern coast.

Gulfs. *Gulf of Mannar*, between India and Ceylon; *Gulf of Cutch*, between the peninsulas of Kathiawar and Cutch.

Lakes. *Wular Lake* in Kashmir; the *Pushkar* and the *Sambhar* in Rajputana. The last named lake supplies much salt for consumption. The *Rann of Cutch* is a great lagoon or salt-water marsh; its water becomes nearly fresh in the rainy season. x

Islands. *Dakhin Shahbazpur*, at the mouth of the Meghna River (as the combined waters of the Padma, the Brahmaputra, and a few smaller rivers are called); *Mergui Archipelago*, west of the Tenasserim Division of Lower Burma; *Rameswaram*, between India and Ceylon; *Elephanta I.*, near Bombay.

Political Divisions. See pp. 54-55.

PROVINCES OF BRITISH INDIA WITH CHIEF CITIES AND TOWNS.

N. B.—The administrative head-quarters are given in italics.

1. The Lower Provinces

of Bengal (pop. nearly 75 mills.)—*Calcutta*, *Darjeeling*.
consisting of :—

- (a) **Bengal**—*Calcutta*, Howrah, Dacca, Murshidabad, Chittagong, Burdwan, Raniganj, *Darjeeling*.
- (b) **Behar**—Patna, Bhagalpur, Gaya, Darbhanga, Monghyr.
- (c) **Oriassa**—*Cuttack*, Puri, Balasore.
- (d) **Chota Nagpur**—*Ranchi*, Hazaribagh, Giridih, Dalton-ganj.

2. **The United Provinces of Agra and Oudh*** (pop. 47½ mills.)—*Allahabad*, Benares, Cawnpur, Agra, Bareilly, Meerut, Mirzapur, Aligarh, Ghazipur, Muttra, *Naini Tal*, Lucknow, Fyzabad.
3. **The Punjab**—*Lahore*, Delhi, Amritsar, Rawal Pindi, Multan, *Simla*.
4. **The N. W. Frontier Province†**—*Peshawar*, Dera Ismail Khan, Abbottabad, Edwardesabad, Kohat, Chitral.
5. **The Bombay Presidency** (pop. 18½ mills.)—*Bombay*, including *Poona*, Ahmedabad, Surat. Sind—Karachi, Haidarabad.
6. **The Madras Presidency** (pop. 38 mills.)—*Madras*, Madura, Trichinopoly, Salem, Combaconam, Bellary, Tanjore, *Ootacamund*.
7. **Assam** (pop. over 6 mills.)—*Shillong*, Gauhati, Sylhet, Dibrugarh, Cherrapunji.
8. **The Central Provinces** (pop. 9 mills.)—*Nagpur*, Jabalpur, Warora, Pachmarhi.
9. **Berar ‡**—Ellichpur, Amraoti, Akola.
10. **Burma** (pop. over 9 mills.)—*Rangoon*, Mandalay, Moulmein, Ava, Pegu, Prome, Akyab, Bassein, Bhamo, *Maymyo*.
11. **Ajmer-Merwara**—*Ajmer*, Mt. Abu.
12. **Ooorg**—*Mercara*.
13. **British Baluchistan**—*Quetta*, Chaman.
14. **The Andamans**—*Port Blair*.

* Previous to the constitution of the N.W. Frontier Province, these Provinces were called the North-Western Provinces and Oudh.

† Constituted on 9th November, 1901 A. D.

‡ Berar was assigned to the British Government by the Nizam of Haidarabad as security for certain military charges; in November, 1902, the Nizam granted to the British a perpetual lease of the Province in lieu of a fixed annual money-payment.

N. B.—Aden (in Arabia) is under the Bombay Government.
Laccadive Is. are under the Madras Government.

Of the fourteen provinces, the Madras and Bombay Presidencies are under **Governors**; Bengal (*i. e.*, the Lower Provinces of Bengal), the United Provinces (of Agra and Oudh), the Punjab, and Burma are under **Lieutenant Governors**; and the rest are under **Chief Commissioners**. The Agent to the Governor General in Rajputana is the Chief Commissioner of Ajmer-Merwara, and the Resident of Haidarabad is the Chief Commissioner of Berar. The Chief Commissioners of British Baluchistan and the North-West Frontier Province are also styled Agents to the Governor General.

Among the larger provinces, Bengal and the United Provinces are the most thickly peopled, there being 493 and 455 inhabitants, respectively, per sq. mile; next comes Madras with a density of population of 270; the most thinly peopled parts are Assam (117), the Central Provinces (113), Sind (67), and Burma (54). The numbers for Bombay (excluding Sind) and Berar are 198 and 150, respectively.

NATIVE STATES UNDER BRITISH PROTECTION OR THE FEUDATORY STATES.

The five most important feudatory states are:—**Haidarabad or the Nizam's Dominions** (capital, *Haidarabad*; chief towns:—*Secunderabad, Warangal, Aurangabad*), **Gwalior** (capital, *Gwalior*), **Mysore** (capital, *Bangalore*; chief towns:—*Mysore, Seringapattam*), **Kashmir** (capitals:—*Srinagar and Jammu*), and **Baroda or the Gaekwar's Dominions** (capital, *Baroda*). In each state there is a British political officer, called a **Resident**, appointed by the Supreme Government (*i. e.*, the Government of India).

In Rajputana and Central India there are a large number of protected states placed in charge of two political officers called **Agents** to the Governor General, one for Rajputana and the other for Central India. The chief Rajputana states are:—**Jodhpur, Bikaner, Jaipur, Udaipur, Bharatpur, Alwar, Tonk,**

Kota, etc, with capitals named after the states. The largest states in Central India are :—**Gwalior** or the **Scindhia's Dominions**, **Indore** or the **Holkar's Dominions**, **Rewah**, and **Bhopal**, the capitals following the names of the states.

The above states are not attached to any of the provinces of British India. There are, however, a large number of states placed under the supervision of different provincial Governments as shewn below.

Bengal States :—Kuch Bihar, Hill Tippera (capital, *Agartola*), Orissa Tributary Mahals, Chota Nagpur Tributary Mahals, Sikkim.

U. P. States :—Rampur, Gāthwal.

Punjab States :—Patiala, Kapurthala, Bhawalpur, Jhind, Nabha, etc.

Bombay States :—Cutch (capital, *Rhoaj*), Kolhapur, Khairpur (in Sind), etc.

Madras States :—Travancore (capital, *Trivandrum*), Cochin, Jaipur, etc.

Central Provinces States :—Bastar, etc.

The rulers of Haidarabad, Bhopal, Khairpur, Tonk, Bhawalpur, and Rampur are Muhammadans ; those of Patiala, Kapurthala, Jhind, and Nabha are Sikhs ; the rest of the states mentioned are under Hindu rulers.

INDEPENDENT NATIVE STATES. *See* p. 55.

FRENCH POSSESSIONS. *See* pp. 55 and 63.

PORTUGUESE POSSESSIONS. *See* pp. 55 and 63.

The total area of British India is about 985,000 sq. miles, and that of the Feudatory States about 655,700 sq. miles.

The population of British India is about 231 millions, and that of the Feudatory States exceeds 63 millions.

Among the Protected States, Cochin, Travancore, and Baroda are the most densely peopled, the number of inhabitants per sq. mile being 530, 380, and 294, respectively.

NOTES ON THE CITIES AND TOWNS GIVEN BEFORE.

See also pp. 56—58.

The largest cities in India, arranged in order of population, are :—

Calcutta (pop. $8\frac{1}{2}$ lacs).

Bombay ($7\frac{1}{2}$ lacs).

Madras (over 5 lacs).

Haidarabad (with suburbs,
pop. nearly $4\frac{1}{2}$ lacs).

Lucknow (over $2\frac{1}{2}$ lacs).

Rangoon.

Delhi.

Benares (over 2 lacs).

Cawnpur.

Agra.

Mandalay.

Allahabad.

Amritsar.

Jaipur.

Bangalore.

Howrah (over $1\frac{1}{2}$ lacs).

Ahmedabad.

Patna.

Nagpur.

Srinagar.

Lahore.

Surat.

Bareilly.

Meerut.

Karachi.

Poona (with suburbs).

Madura.

Trichinopoly.

Baroda (over 1 lac).

Calcutta, Bombay, Madras, Rangoon, Karachi, and Chittagong are the six largest ports in India. The Hooghly River, on the left bank of which Calcutta stands, is navigable with some difficulty; the chief exports of Calcutta are :—*jute, tea, opium, rice, oil-seeds, wheat, coal, hides, and indigo*. Bombay has the finest harbour in India; its principal exports are :—*cotton* (raw and manufactured), *grains, opium*, etc. Madras possesses no natural harbour, but a sort of harbour has been artificially constructed. Rangoon stands on the estuary of the Rangoon River; it exports *rice, teak-wood, and petroleum*. Wheat and oil-seeds are largely exported from Karachi; and *rice, tea*, etc., from the port of Chittagong.

Howrah is a terminus of two long railway lines *vis.*, the East Indian Railway (to Delhi), and the East Coast Railway (to Madras). There are large engineering work-shops at Howrah. Near it (at Sib-

pur) are the Government botanical gardens and the only engineering college in Bengal. **Dacca** was once the Muhammadan capital of Bengal and famous for its fine muslins. **Murshidabad** was the last capital of the Nawabs of Bengal; it is noted for silk manufacture. **Chandernagore** is the only French possession in Bengal; it manufactures fine *dhories*. **Raniganj** is famous for its coal fields; there are pottery-works and a paper mill in the town. The hill-station of **Darjeeling** (elevation, 7,000 ft.) is the summer capital of Bengal, and a great sanatorium. **Gaya** is a holy place of the Hindus. **Monghyr** is famous in history; it works in iron. **Cuttack** is the largest town in Orissa and the head-quarters of the Divisional Commissioner of Orissa. **Puri** is a holy city of the Hindus, famous for the temple of Jagannath. **Balasore** is a small port. **Ranchi** is the head-quarters of the Commissioner of Chota Nagpur Division. **Giridih** and **Daltonganj** are famous for their coal mines. **Meerut** is a large military station; it manufactures soap. **Mirzapur** manufactures carpets. **Ghazipur** is noted for the distilling of rose water; it contains an opium factory of the Government of Bengal. **Aligarh** is famous for its Muhammadan College. **Muttra** is regarded as a holy place by the Hindus. **Naini Tal** is the summer capital of the United Provinces. **Fyzabad** is a military station and a place of considerable grain trade. **Amritsar** is the sacred city of the Sikhs; it manufactures shawls and carpets. **Rawal Pindi** is a large military station. **Multan** is also a military station; it is noted for its pottery. **Simla** is the summer capital of British India and of the Punjab. **Peshawar** is a large military station. **Chitral** has lately become famous in Indian history. **Poona** is a large military station; it is the summer capital of the Bombay Presidency and contains a "College of Science." **Surat** was the first English settlement in India and was once a port of great importance; it manufactures cotton. **Ahmedabad** is famous for its cotton mills. **Madura** is an ancient city with a famous temple. **Trichinopoly** is a military station; it manufactures jewellery and tobacco. **Salem** and **Bellary** are famous for iron-ores; Bellary is a military station.

Combaconam and **Tanjore** are ancient cities. **Ootacamand** is the summer capital of the Madras Presidency and a sanatorium. **Gauhati** is the largest town in the Assam Valley Districts. **Cherrapunji** receives the heaviest rain-fall in the world. **Nagpur** manufactures cotton. **Jabbalpur** is famous for cotton manufacture and for its potteries. **Warora** is famous for its iron ores. **Pachmarhi** is the summer capital of the Central Provinces. **Amraoti** has large trade in cotton. **Mandalay** was the last capital of Upper Burma during native rule; **Ava** was a still earlier capital of Burma. **Akyab** has large trade in rice. **Bhamo** is the Burmese town nearest the Chinese frontier. **Maymyo** is the summer capital of Burma. **Mt. Abu** (a peak of the Aravalli Hills) is the headquarters of the Agent to the Governor General in Rajputana; it is noted for its Jain temples. **Ajmer** contains the Mayo College, an institution for sons of native chiefs. **Quetta** is a large military station. **Chaman** is the western-most town and railway station in India. At **Port Blair**, Lord Mayo was murdered. **Secunderabad** (suburb of Haidarabad) is one of the most important British military stations in India. **Srinagar** is the summer residence of the Maharaja of Kashmir, and **Jammu** is his winter residence. **Jammu** is accessible by rail from Sialkot (in the Punjab). The civil and (British) military station of **Bangalore** is under the Resident of Mysore; the *town* of Bangalore is the capital of the state. **Seringapattam** is famous in Indian history. **Baroda** is the capital of the Gaekwar; it has a few cotton mills. **Jaipur** is the capital of the Maharaja and is a well laid-out city. **Indore** is the capital of Holkar's Dominions and the head-quarters of the Governor General's Agent for Central India; it manufactures cotton. **Gwalior** is the capital of Scindhia's Dominions; it is famous in Indian history.

DIVISIONS AND DISTRICTS OF BENGAL WITH CHIEF TOWNS.

I. Presidency Division :—

1. The City of Calcutta.
2. Twenty-four Parganas.....Alipur, Barrackpur, Dum-Dum, Naihati, Basirhat, Barasat, Diamond Harbour.

3. Khulna...Khulna, Satkhira, Bagerhat.
4. Nadia (or Krishnagar)...Nadia, Ranaghat, Kushtea, Plassey.
5. Jessore...Jessore, Kotechandpur, Narail, Bangaon.
6. Murshidabad...Berhampur, Murshidabad.

II. Burdwan Division :—

1. Burdwan...Burdwan, Raniganj, Kālāna, Katwa, Asansol, Sitarampur, Barakar.
2. Bankura...Bankura, Vishnupur.
3. Birbhum...Suri, Rampur Hat.
4. Midnapur...Midnapur, Tamluk, Ghatal.
5. Hooghly...Chinsura, Hooghly, Serampur, Jahanabad.
6. Howrah...Howrah, Bally, Ulubaria.

III. Rajshahi Division :—

1. Dinajpur...Dinajpur.
2. Rajshahi...Rampur Boalia, Nator.
3. Rangpur...Rangpur.
4. Bogra...Bogra.
5. Pabna...Pabna, Sirajganj.
6. Darjeeling...Darjeeling, Kurseong, Kalimpong.
7. Jalpaiguri...Jalpaiguri, Alipur, Buxa.

IV. Dacca Division :—

1. Dacca...Dacca, Narayanganj, Munshiganj.
2. Faridpur...Faridpur, Madaripur, Goalundo.
3. Barisal or Backerganj...Barisal.
4. Mymensingh...Nasirabad, Jamalpur.

V. Chittagong Division :—

1. Tippera...Comilla, Chandpur.
2. Noakhali...Sudharam.
3. Chittagong...Chittagong.
4. Chittagong Hill Tracts.

VI. Patna Division :—

1. Patna...Bankipur, Patna, Bihar, Dinapur.
2. Gaya...Gaya.
3. Shahabad or Arrah...Arrah, Sasaram, Buxar, Dumraon.
4. Darbhanga...Darbhanga, Madhubani, Samastipur.
5. Muzaffarpur...Muzaffarpur, Hajipur.

6. Saran or Chapra...Chapra, Siwan.

7. Champaran...Motihari, Bettiah.

VII. Bhagalpur Division :—

1. Monghyr...Monghyr, Jamalpur.

2. Bhagalpur...Bhagalpur.

3. Purnea...Purnea, Katihar.

4. Malda...English Bazar, Nawabganj, Old Malda.

5. Sonthal Parganas.....Naya Dumka, Deoghar, Sahibganj,
Madhupur, Rajmahal, Baidyanath.

VIII. Orissa Division :—

1. Cuttack...Cuttack.

2. Balasore...Balasore, Bhadrak.

3. Angul.

4. Puri...Puri, Khurda.

IX. Chota Nagpur Division :—

1. Hazaribagh...Hazaribagh, Giridih.

2. Lohardaga or Ranchi...Ranchi, Lohardaga.

3. Palamau...Daltonganj.

4. Manbhum...Purulia, Gobindpur, Jherria.

5. Singhbhum...Chaibassa.

DIVISIONS AND DISTRICTS IN THE UNITED PROVINCES.

I. Meerut Division :—Dehra Dun, Saharanpur, Muzaffarnagar,
Meerut, Bulandshahr, Aligarh.

II. Agra Division :—Muttra, Agra, Farukhabad, Mainpuri, Etawah,
Etah.

III. Rohilkhand Division :—Bareilly, Bijnor, Budaun, Moradabad,
Shahjahanpur, Pilibhit.

IV. Allahabad Division :—Cawnpur, Fatehpur, Banda, Hamirpur,
Allahabad, Jhansi.

V. Benares Division :—Benares, Mirzapur, Jaunpur, Ghazipur, Ballia.

VI. Gorakhpur Division :—Gorakhpur, Basti, Azamgarh.

- VII. Kumaon Division :—Naini Tal, Almora, Gharwal.
- In Oudh. { VIII. Lucknow Division :—Lucknow, Unao, Rai Bareli, Sitapur,
Hardoi, Kheri.
- IX. Fyzabad Division :—Fyzabad, Gonda, Bahraich, Sultanpur,
Partabgarh, Bara Banki.

DISTRICTS IN THE PUNJAB.

Delhi, Gurgaon, Karnal, Hissar, Rohtak, Umballa, Simla, Jullunder, Hoshiarpur, Kangra, Ludhiana, Lahore, Amritsar, Gurdaspur, Multan, Jhang, Montgomery, Rawal Pindi, Jhelum, Gujrat, Shahpur, Gujranwala, Sialkot, Dera Ghazi Khan, Muzaffargarh.

DISTRICTS ETC. IN THE N. W. FRONTIER PROVINCE.

The Districts of Dera Ismail Khan, Bannu, Peshawar, Hazara, and Kohat (with the tribal regions beyond their limits), and the Agencies of Dir, Swat, Chitral, the Khybar, the Kurram, Tochi, and Wana.

DIVISIONS AND DISTRICTS IN THE CENTRAL PROVINCES.

- I. Nagpur Division :—Nagpur, Bhandara, Wardha, Chanda, Balaghat.
- II. Jabbalpur Division :—Jabbalpur, Saugor, Damoh, Seoni, Mandla.
- III. Nerbudda Division :—Hoshangabad, Nimar, Narsingpur, Betul, Chhindwara.
- IV. Chattisgarh Division :—Raipur, Bilaspur, Sambalpur.

DISTRICTS IN ASSAM.

Assam Valley Districts (under a Commissioner) :—Goalpara (or Dhubri), Sibsagar (or Jorhat), Kamrup (or Gauhati), Lakhimpur (or Dibrugarh), Darrang (or Tezpur), and Nowgong.

Cachar (Silchar), Sylhet, Garo Hills, Khasi and Jaintia Hills, and Naga Hills (Kohima) are directly under the Chief Commissioner.

DIVISIONS AND DISTRICTS IN LOWER BURMA.

- I. Arakan Division :—Akyab, Northern Arakan Hill Tracts, Kyauk Phyu, Sandoway.
- II. Pegu Division :—Rangoon City, Hanthawaddy, Pegu, Tharrawaddy, Prome.

- III. Irawady Division :—Thongwa, Bassein, Henzada, Myaungmya.
- IV. Tenasserim Division :—Toungoo, Salween, Thaton, Amherst (Moulmein), Tavoy, Mergui.

DIVISIONS AND DISTRICTS IN UPPER BURMA.

- I. Southern Division :—Thayetmyo, Pakokku, Minbu, Magwe.
- II. Northern Division :—Mandalay, Bhamo, Myitkyina, Katha, Ruby Mines.
- III. Central Division :—Shwebo, Sagaing, Lower Chindwin, Upper Chindwin.
- IV. Eastern Division :—Kyatukse, Meiktila, Yamethin, Myingyan, besides the Northern Shan States, Southern Shan States, and Chin Hills.

DISTRICTS IN THE MADRAS PRESIDENCY.

Anantapur, Bellary, Chingleput, Coimbatore, Cuddapah, Ganjam, Godavari (or Rajamahendri), Kistna, Karnool, Madras City, Madura, Malabar (or Calicut), Nilgiri (or Ootacamand), Nellore, North Arcot, Salem, South Arcot (or Cuddalore), South Canara (or Mangalore), Tanjore, Tinneveli, Trichinopoly, Vizagapatam.

DIVISIONS AND DISTRICTS IN THE BOMBAY PRESIDENCY.

- I. Northern Division :—Ahmedabad, Bombay Island, Broach, Kaira, Panch Mahals, Surat, Thana.
- II. Central Division :—Ahmednagar, Khandesh, Nasik, Poona, Satara, Sholapur.
- III. Southern Division :—Belgaum, Bijapur, Dharwar, Kanara, Kolaba, Ratnagiri, Savantavadi.
- IV. Sind :—Haidarabad, Karachi, Shikarpur, Thar and Parkar, Upper Sind Frontier.

ADDITIONAL NOTES ON TOWNS.

In Bengal. Barrackpur contains the country residence of the Viceroy. Alipur is the residence of the Lieutenant Governor of Bengal. Naihati is an important railway station, being the junction of the East Indian and the Eastern Bengal Railways; there is a large railway bridge

across the Hooghly. **Nadia** was the last Hindu capital in Bengal. **Goalundo** is an important commercial town; it supplies fish to the Calcutta market. **Narayanganj** has large trade in rice and jute. **Sirajganj** is famous for its jute trade. **Chahdpur** is a rising commercial town. **Midnapur** has manufactures of silk. **Tamluk** was once a thriving port. **Jamalpur** contains extensive locomotive workshops of the East Indian Railway. **Sitarampur** and **Jherria** are noted for their coal mines. **Barakar** is famous for its iron ores and manufactures of iron. **Asansol** is an important railway centre and contains the large locomotive sheds of the East Indian Railway. **Madhupur** and **Baidyanath** are famous for their salubrious climate and are much resorted to by natives of eastern Bengal to recruit their health; **Baidyanath** is a place of pilgrimage of the Hindus. **Rajmahal** is an old but decayed town. **Naya Dumka** is the headquarters of the Sonthal Parganas. **Darbhanga** is famous for its mangoes, and **Muzaffarpur** for its *lichis*. The District of Malda contains the ruins of **Gaur**. **Katwa**, **Buxar**, **Udwanala** (near Rajmahal), **Plassey**, and **Segauli** (in Champaran District) are famous in Indian history.

In the United Provinces. **Jaunpur** manufactures perfumes and is a town of historical interest. **Shahjahanpur** is a military station; sugar and rum are manufactured at **Kosa** in its neighbourhood. **Moradabad** has manufactures of cotton and ornamental metal-wares. **Saharanpur** contains a Government botanical garden; the neighbouring town of **Roorkee** contains the largest engineering college of India. **Mussoorie** (in the Dehra Dun District) is the chief hill-station and sanatorium of the Province; **Landour** also is an important hill-station. **Dehra Dun** has a government forest school of some note. **Hardwar**, and **Brindaban** (near Muttra) are sacred places of the Hindus. The site of **Hastinapur** is to the N. E. of Delhi and on the Ganges. **Fatehpur Sikri** (near Agra), **Kanauj** (N. W. of Cawnpur), and **Jhansi** are famous in the history of India.

In the Punjab. **Umballa** and **Jullunder** are two of the military stations of the Punjab; Umballa is a large trading town. **Ludhiana** manufactures woollen goods. **Dalhousie** and **Murree** are the chief sanatoria of the Province; there has been a proposal to transfer the summer capital of the Province from Simla to Dalhousie. **Mean Meer** is the

cantonment of Lahore. **Attock** occupies a commanding position, being situated at the confluence of the Cabul R. with the Indus; it is a military station. The site of **Indraprastha** coincides with a part of modern Delhi. **Thaneswar** is situated 26 miles to the S. E. of Umballa. The site of **Kurukshetra**, famous in the ancient Indian history, is probably between Thaneswar and Umballa. The historical town of **Bhatinda** is within the limits of the present feudatory state of Patiala. The famous battle-field of **Panipat** is about midway between Delhi and Umballa. **Sirhind**, also famous in history, lies to the N. W. of Umballa. The following towns are famous in the Sikh wars:—**Firozepur** (on the Sutlej), **Mudki** (to the S. E. of Firozepur), **Sobraon** (to the N. of Mudki), **Aliwal** (to the N. E. of Mudki), **Chillianwala** (on the Jhelum), and **Gujrat** (on the Chenab).

In **Rajputana**. **Chitor** (N. E. of Udaipur), **Bharatpur**, and **Laswari** are all towns of historical interest.

In **Central India**. **Ujjain** (in Gwalior) was the capital of Raja Vikramaditya. **Salbai** (a village in the state of Gwalior) is famous in Indian history. **Mhow** is a large British cantonment.

In **Kathiawar**. **Dwarka** is a sacred city of the Hindus. **Somnath** is famous in history.

In **Sind**. **Amarkot**, **Haidarabad**, and **Miani** are famous in Indian history.

In the rest of the **Bombay Presidency**. **Broach**, a few miles from the mouth of the Nerbudda, was formerly an important port: it has a few cotton factories. **Nasik** is a sacred place of the Hindus. **Dharwar** has great trade in cotton. **Belgaum** is a military station. **Mahabaleshwar** is the chief sanatorium of the Province. **Bijapur**, **Ahmednagar**, **Talikot**, **Kirkee** (4 miles N. of Poona), **Bassein**, and **Satara** are famous in history.

In the **Madras Presidency**. Minor ports on the eastern coast are:—**Genjam**, **Vizagapatam**, **Cocanada**, **Masulipatam**; the French town of **Pondicherry**, **Cuddalore**, and **Tranquebar**—on the **Coromandel Coast**; and **Tuticorin**. **Tuticorin** is a rising port and is the port of call of the Australian mail steamers. Minor ports on the **Malabar Coast** are:—**Trivandrum**, **Quilon**, **Cochin**,

Beypur, **Calicut**, **Cannanore**, and **Mangalore**. **Calicut** gave its name to the cloth called *calico*. **Cannanore** has manufactures of cotton. **Mangalore** exports coffee. **Coonoor** on the Nilgiri Hills is a healthy station, with plantations of coffee and cinchona. **Dindigal** is famous for tobacco manufacture. **Conjeveram** is the most sacred place of the Hindus in the Province. **Madura** contains many pagodas. **Arcot**, **Porto Novo** (to the south of Cuddalore, on the Coromandel Coast), **Wandewash**, and **Vellor** (to the N. W. of Pondicherry), are famous in history.

In the Central Provinces. **Hinganghat** is famous for large trade in cotton. **Kampti** and **Saugor** are military stations. **Sambalpur** was formerly famous for its diamonds.

In Berar. **Argaon** is famous in Indian history.

In Haidarabad. **Bidar** has given its name to the ornamental metalware known as *bidree* ware. **Singareni** is famous for its coal mines. **Assye**, **Ajanta**, and **Ellora** are situated in the N. W. of the Province. **Assye** is famous in history. **Ellora** is famous for its ancient cave-temples cut out of rocks; **Ajanta** is also famous for its temples.

Forests. *Refer to p. 63.* Forests are most extensive in the Madras Presidency, the Central Provinces*, and Burma. After them rank those of the United Provinces, the Bombay Presidency, Bengal, the Punjab, Berar, and Assam, in the order named. In the United Provinces forests occur chiefly in the Kumaon Division, in the District of Dehra Dûn, and generally in the Terai (Pilibhit, Bahraich, Gonda, Gorakhpur). In Bengal the principal forest regions are :—Darjeeling and Jalpaiguri, Sundarbans, Chittagong, Sonthal Parganas, Chota Nagpur (Chaibassa, Palamau, etc.), and Orissa Hill Tracts (Angul, etc.). The forests of the Andaman Islands are also important. The most valuable forest trees of India are :—the *teak* (Burma and the Deccan), *sal* (Nepal, the United Provinces, the Central Provinces, and Chota Nagpur), *sissu*, *toon*, *sandal-wood* and *ebony* (Burma and Mysore), and *India-rubber tree* (Assam and Burma).

* The forests of the Central Provinces are known as the *Gondawana forests*.

Agriculture. *Refer to pp. 64-65.* The most important agricultural products are :—

- Rice** ... In all the provinces ; about half of the total out-turn is raised in Bengal.
- Wheat** ... In all the provinces, but chiefly in the Punjab and the United Provinces.
- Oil-seeds** ... In all the provinces, but chiefly in Bengal and in smaller, though considerable, quantities in the Bombay and Madras Presidencies, and in the Central Provinces.
- Tea** ... Chiefly in Assam (including Cachar and Sylhet), Darjeeling, and Jalpaiguri (Dooars) ; also, on a small scale in the Punjab (Kangra) ; the United Provinces (Dehra Dun, Kumaon) ; the Chittagong, Ranchi, and Hazaribagh Districts of Bengal ; the Madras Presidency (the Nilgiris and Malabar) ; and Burma (Upper Chindwin and Katha).
- Jute** ... Mostly in Eastern Bengal.
- Cotton** ... Chiefly in Berar, the Bombay Presidency, the Madras Presidency, the United Provinces, and the Central Provinces.
- Opium** ... Behar, the United Provinces, and Malwa.
- Sugar-cane** Chiefly in the United Provinces, the Madras and Bombay Presidencies, and Bengal ; in smaller quantities in the Central Provinces, the Punjab, Berar, and Upper Burma.
- Coffee** ... The Madras Presidency (chiefly in the Nilgiris), Mysore, and Coorg.
- Indigo** ... Chiefly in Bengal, the Madras Presidency, and the United Provinces, and on a small scale in the Punjab.
- Tobacco** ... Chiefly in Bengal, and in smaller quantities in the Madras Presidency, Burma, and the Punjab.

Other important products are :—*Maize or Indian corn** (the staple food-crop of the poor in parts of Upper India), *Juar or great millet* (the staple grain-crop of Southern India), *pulses*, and *potatoes*. *Barley* and *Oats* are raised in India, but not largely. There are Government *cinchona* plantations in the District of

* In the Lower Provinces of Bengal, it is grown mostly in Behar, Southal Parganas, and Chota Nagpur.

Darjeeling and on the Nilgiri Hills. *Sabai grass*, used in paper-manufacture, is cultivated in the Singhbhum District (Chota Nagpur), and at the foot of the Rajmahal Hills. The following cultivated plants also deserve mention:—The *mulberry* (in the silk-districts—see p. 150), *coconut*, *Indian palmyra* (or *tāl*), *betel-nut palm*, *date-palm*, *ground-nut*, *mahua*, *hemp*, *cardamom*, *turmeric*, *ginger*, *chillies*, *brinjal*, *palval*, *cabbages*, *cauli-flower*, *radish*, *mango*, *plantains*, *papaya*, *guava*, *pine-apple*, *orange*, *bamboo*, *tamarind*, and the *betel-vine*.

Minerals. The principal minerals found in India are coal, gold, petroleum, iron, salt, marbles and other stones, tin, and mica. Rubies, diamonds, plumbago, and manganese occur in small quantities.

Distribution of the minerals.

Coal Raniganj, Sitarampur, Asansol, Barakar, etc., (in the Burdwan District); Giridih, Karharbaree,* and Serampur* (places adjacent to one another), in Hazaribagh; Jherria (in Manbhum); Daltonganj (in Palamau); Umaria (in Rewah); Singareni (in the Godavari Valley, Haidarabad); Cherrapunji, Khasia and Jaintia Hills, and Margherita (in the District of Dibrugarh), in Assam; Jammu; Shwebo and Upper Chindwin, in Upper Burma; etc.

Iron All over India, especially in the hilly districts of Western Bengal (notably at Barakar in the Burdwan District); about Warora and Jabbalpur (in the Central Provinces); in the Salem, Bellary, and Kurnool Districts of the Madras Presidency.

Petroleum ... Kyaukphyu and Akyab (in the Arakan Division—Lower Burma); Minbu and Magwe (in the Southern Division—Upper Burma); Dibrugarh, and Khasia and Jaintia Hills, in Assam.

Gold ... Mysore (Kolar, Nandidrug, etc., in the eastern part of the Province), Katha (in Burma), etc.

* The East Indian Railway Company are owners of these mines.

Salt ...	... Sambhar (in Rajputana), the Jhelum and Shahpur Districts in the Punjab, etc.
Marbles, Slates, etc.	Jaipur, Mirzapur, Chunar, Gaya, Monghyr, Rajmahal, Kangra (in the Punjab), etc.
Lime-stone...	Sylhet, Shillong, Katni (near Jabbalpur), Naini Tal, etc.
Mica ...	... Hazaribagh, parts of the Madras Presidency.
Tin ...	... Tenasserim.
Rubies ...	... Burma.
Diamonds ...	... Panna (in Bundelkhand); formerly at Golconda (in Hyderabad), and Sambalpur (in the Central Provinces).
Manganese...	Parts of the Central Provinces.
Plumbago ...	... Cochin.

Zoology. See pp. 67-68. It should be added that poisonous *snakes* are abundant in the country.

Industries. Nearly three-fourths of the population are engaged in agriculture. The indigenous arts and manufactures are not in a prosperous condition; they include manufactures of *shawls* (Kashmir, Amritsar, etc.), *carpets* (Kashmir, Mirzapur, Amritsar, etc.), *cottons*, and *silks** (Murshidabad, Benares, Bombay, etc.), and *ornamental work* in gold, silver, brass, ivory, wood, etc. New branches of industry, however, have taken root and show a vigorous growth. The Bengal coal *mines* and the great *railway lines* which now intersect the country and the large *work-shops* maintained in connection with them, give employment to a large number of the people. Several important manufactures are now carried on by means of machinery worked by *steam-power*. The chief among these are:—*Cotton* (Bombay, Ahmedabad, Surat, Broach, Poona, Nagpur, Baroda, Indore, Jabbalpur, Wardah, a few places near Calcutta, Madras, etc.); *woollen* (Cawnpur, Bombay, Bangalore, etc.), *Jute* (neighbourhood of Calcutta); and *paper* (Bally and Titagarh—two places near Calcutta, Raniganj, Lucknow, Bombay, Poona, Surat, etc.). Besides the above, the following classes of work deserve special mention:—*Jute presses* (Calcutta and its

* *Silk-worms* are reared and silk is manufactured in the following Bengal Districts:—Murshidabad, Malda, Rajshahi, Midnapur, Birbhum, etc.; also, in Assam, Kashmir, Mysore, Poona, and Dehra Dun.

neighbourhood); *cotton presses* (Bombay, Madras, &c.); *iron works* (Barakar); *engineering works* (Howrah and Bombay); *sugar-mills* (the Jessore District in Bengal, Cossipur—near Calcutta, Ganjam, Cawnpur, Rosa—near Shahjahanpur, Bellary, Tinnevely, Coimbatore, certain places in the Arcot District of the Madras Presidency, etc.); *tanneries* (Cawnpur, Agra, Calcutta, Madras, Bombay, Madura, Coimbatore, Trichinopoly); *soap factories* (Meerut, Cawnpur, neighbourhood of Calcutta); *potteries* (Raniganj, Jabbalpur, Bareilly, Aligarh, Multan, Calicut, Bombay); *tobacco factories* (chiefly in the following places of the Madras Presidency:—Cocanada, Dindigal, Madras, Trichinopoly); *rice and saw mills* (chiefly in the large cities of Burma); *flour-mills, oil-mills, lac-factories* (Mirzapur, Lohardaga, etc.); *roperies* (Howrah, Sibpur, Cochin, Calicut, etc.); *petroleum refineries*, breweries, ice-works, etc.*

Commerce. The principal exports from India in 1901-1902 A. D., with their approximate values, were as follows:—

<i>Article.</i>	<i>Value (in Rs.).</i>	<i>Remarks.</i>
Rice	14 crores	About 45% to Europe as a food supply, and as material for the manufacture of spirits and starch; about 55% to other Asiatic countries, Eastern Africa (including the islands), and America. Export of rice from Bengal is gradually diminishing. Burma is now the first rice-exporting Province in the country.
Pulses, wheat, and other grains	4½ „	Wheat is exported chiefly at Karachi.
Seeds (<i>vis.</i> , linseed, rape, sesame, cotton, castor, poppy, earth-nuts)	16¼ „	Rape-seed is grown chiefly in the Punjab; cotton-seed has recently become an article of export.

* See under minerals.

<i>Article.</i>	<i>Value (in Rs.).</i>	<i>Remarks.</i>
Cotton, raw	14½ ,,	Nearly 50% to Japan; a considerable proportion to China and the continent of Europe. The United Kingdom has practically ceased to import Indian cotton.
Jute, raw	11¼ ,,	Chiefly to the United Kingdom, Germany, the United States of America, and France.
Cotton yarn and cloth	11 ,,	Nearly the whole to China.
Jute manufactures	8¾ ,,	To various parts of the world.
Opium	8½ ,,	To China.
Hides and skins	8¼ ,,	Skins, chiefly to the United States.
Tea	8 ,,	Chiefly to the United Kingdom; also, to Australia, Turkey-in-Asia, Persia, Russia, China, Canada, and Germany.
Indigo	2 ,,	The export has been declining since 1897 A. D., owing to the competition of artificial indigo made in Germany.
Coffee	7¼ ,,	Chiefly to France.
Lac	1 crore.	
Wood and timber	90 lacs.	

Other exports were :—Coal (to Colombo, Singapore, Aden, British East Africa, Mauritius, and Sumatra), wool, silk and its manufactures, animal bones, coir, woollens, apparel, etc.

India has ceased to export sugar; on the other hand, she now imports it largely.

The total value of the Indian merchandise (excluding gold and silver) exported exceeded 121 crores of Rupees. The value of the exports was distributed among the principal countries with which the trade is carried on, as follows :—

United Kingdom 25·1%, China 14·5%, Germany 8·4%, France

7·3%, United States 6·9%, Japan 5·7%, Straits Settlements 5·2% ; Egypt, Belgium, Ceylon, Italy, and Austria-Hungary in smaller proportions.

N. B. The student is recommended to refer again to parts of pp. 127-129 bearing on the present subject.

The principal imports into India in 1901-2 A. D., with their approximate values, were as follows :—

<i>Article.</i>	<i>Value (in Rs.).</i>	<i>Remarks.</i>
Cottons (including yarn)	33 crores	Nearly the whole was imported from the United Kingdom, less than 3% being supplied by Germany, France, and Austria-Hungary.
Metals and metal-ware	8 „	Galvanised and tinned iron, and sheets of lead were imported from Great Britain ; steel and iron bars and sheet iron mainly from Belgium, and in smaller proportion from Great Britain. The supply of hardware and cutlery from Germany is gradually increasing.
Machinery and railway material	4½ „	From the United Kingdom, Germany, etc.
Sugar	5½ „	Most of the beet-sugar was imported from Austria-Hungary, and a considerable quantity from Germany. Molasses and most of the cane-sugar imported came from Mauritius, and some cane-sugar from Java, China, and the Straits Settlements.

<i>Article.</i>	<i>Value (in Rs.).</i>	<i>Remarks.</i>
Petroleum	4 crores.	80% came from Trans-Caucasia (in Russia), 14% from Burma, and 6% from the United States.

Other imports were :—Provisions (chiefly dates and salted fish), woollens (from Germany and the United Kingdom), apparel (including boots and shoes), silk manufactures, spirits and beer,—of value between 2 and 1½ crores, each ; drugs, medicines, and chemicals, precious stones and pearls, glass and glass-ware (from the United Kingdom, Austria-Hungary, Germany, and Belgium),—of value about 1 crore, each ; spices, silk (raw), salt (from England, Germany, Aden, Red Sea coasts), artificial dyes (from Germany, Belgium, Holland), paper and paste-board,—of value between 85 and 50 lacs, each ; horses, coal (from Great Britain), matches (chiefly from Japan), paints and colours, scientific instruments, stationery, carriages and carts, arms and ammunitions, earthen-ware and porcelain, book- and printed matter,—of value between 50 and 25 lacs, each ; building materials, cigarettes, umbrellas, and tea-chests,—of value between 25 and 10 lacs, each.

The total value of the imports (excluding gold and silver) approached 81½ crores of Rupees. The value of the imports was distributed among the principal countries from which India receives merchandise, as stated below :—

United Kingdom 64·5%, Austria-Hungary 4·8%, Russia 3·9%, Germany and Belgium 3·7%, each ; Straits Settlements, Mauritius, China, France, and United States, between 3 and 1·4%, each.

N. B. The student is recommended to refer to p. 126 again.

Railways. The principal railway lines are :—

1. **East Indian Railway**—(a) from Howrah by Khana, Asansol, Lukheesera, Bankipur, Moghalsera, Naini, Allahabad, Cawnpur, Ghaziabad, to Delhi ; (b) a loop line from Khana by Bhagalpur, Jamalpur, to Lukheesera ; (c) from Lukheesera to Gaya ; (d) from Bankipur to Gaya ; (e) from Naini to Jabbalpur.

N. B. **Delhi-Umballa-Kalka Railway** connects Delhi with Kalka ; a line to connect Simla with Kalka is under construction.

2. **Great Indian Peninsula Railway**—(a) from Jabbalpur by Bhusawal to Bombay; (b) from Nagpur to Bhusawal; (c) from Bombay to Raichur.

3. **Bengal and Nagpur Railway**—from Asansol to Nagpur.

N. B. There are two routes from Calcutta to Bombay *viz.*,—(1) from Howrah *via* Naini, Jabbalpur, and Bhusawal, to Bombay, and (2) from Howrah *via* Asansol, Nagpur, and Bhusawal, to Bombay. The former is the mail-route.

4. **East Coast Railway**—from Howrah by Khurda Road, Bezwada, to Madras. A branch line connects Khurda Road with Puri.

N. B. There are lines connecting Bezwada with Haidarabad, Bangalore, and Poona.

5. **Eastern Bengal Railway**—(a) from Sealdah by Poradaha to Goalundo; (b) from Poradaha to Siliguri, the Ganges being crossed by passengers in steamers; (c) from Manihari to Dhubri.

N. B.—*Darjeeling-Himalayan Railway* connects Siliguri with Darjeeling.

6. **Bengal and North-Western Railway** connecting Cawnpur, Lucknow, Gorakhpur, Chapra, Muzaffarpur.

7. **Oudh and Rohilkhand Railway**—(a) from Moghalserai by Benares, Rae Bareilly, Lucknow, to Saharanpur; (b) a loop line from Moghalserai by Fyzabad to Lucknow; (c) from Lucknow to Cawnpur.

8. **North-Western Railway**—(a) from Delhi by Saharanpur, Umballa, Amritsar, Lahore, Rawal Pindi, to Peshawar; (b) from Lahore by Multan, Ruk, to Karachi; (c) from Ruk by Quetta to Chaman.

9. **Bombay, Baroda, and Central India Railway**—from Delhi by Jaipur, Ajmer, Ahmedabad, Baroda, Surat, to Bombay.

10. **Madras Railway**—(a) from Madras to Raichur; (b) from Madras to Calicut.

N. B. Lines 2 (c) and 10 (a) connect Bombay with Madras.

11. **South Indian Railway**—from Madras to Tuticorin.

12. **Burma Railways**—(a) from Rangoon to Mandalay; (b) from Rangoon by Pegu to Prome; etc.

Climate. Very unequal climatic conditions obtain in different parts of India. The higher regions of the Himalayas are covered with perpetual snow, while over the greater part of the plains, omitting Assam and Malabar, the summer-heat is almost unbearable. The various hill-stations noticed before, which are situated at moderate elevations, enjoy a delightfully cold weather in summer (March to June). The north-western parts of India are characterized by extremes of temperature. There are three well-marked seasons in India—the rainy, the winter, and the summer. The first is ushered in with the blowing of the rain-bearing S. W. monsoon (or periodical wind), and lasts generally from June to October. If this monsoon is strong, the rain-fall is heavy; if too weak, it is scanty, and famine conditions prevail. The winter commences with the blowing of the dry N. E. monsoon and lasts usually from October to February. The rain-bearing winds are mostly arrested and condensed by the Western Ghats and the Eastern Himalayas; hence, there is usually abundant rain-fall in the territory between the sea and the Western Ghats and in the sub-Himalayan regions. The Cherrapunji Hills are remarkable for getting the heaviest rain-fall in the world. The coasts generally, especially the Burmese, get abundant rain; in the Central Provinces, Central India, and parts of Rajputana, it is less; while in the deserts of Sind rain-fall is rare. The climate of Assam, the Terai districts, and the greater part of Bengal Proper is malarious and unhealthy.

Races. About two-thirds of the population (including the Punjabis, the Rajputs, the Mahrattas, the Hindusthanis, and most of the inhabitants of Lower Bengal) are considered to belong to the Aryan race. The non-Aryans are generally divided into three great tribes:—(a) The Dravidian which is the most important among these tribes, more than 50 millions of people of the Madras Presidency belonging to it; (b) the Tibeto-Burman which includes the people dwelling in the Himalayan regions and Burma; and (c) the Kolarian to which belong the Sonthals and the hill-men of Orissa.

The *Gurkhas* of Nepal belong to tribe (*b*). Among the wild aboriginal tribes the following may be mentioned :—The *Garos*, *Nagas*, and *Cookies* inhabiting the Garo Hills, Naga Hills, and Lushai Hills, respectively; the *Gonds*, *Kols*, and *Bheels*, of the Central Provinces and Central India; and the *Todas* of the Nilgiris. The Parsis who came originally from Persia to avoid religious persecution in that country and settled themselves in Gujarat, now number about 90,000, and reside mostly in Bombay. They are chiefly engaged in various trades and manufactures, and several among their leading men have made themselves conspicuous by their public-spirited philanthropy.

Languages. Considerably more than a quarter of the population speak Hindi, and about one-seventh, Bengali. Both these tongues belong to the Aryan family of languages.

Other important Indian languages are :—

Aryan...Marathi, Punjabi, Sindhi, Gujarati, Oriya, Assamese, etc.

Non-Aryan...(a) Dravidian :—Telugu, Tamil, Canarese, Malayalam, etc.

(b) Tibeto-Burman :—Burmese, Nepalese, Bhotia, Manipuri, Arakanese, Limbu, Lepcha, etc.

(c) Mundā :—Sonthali, Mundari (chiefly in the Ranchi District), etc.

(d) Khasi.

Among foreign languages used in India the most important are :—English, Balochi, Pashto, Persian, Armenian, and Hebrew.

Religions. Over 200 millions of inhabitants are Hindus, about 60 millions are Muhammadans, and between 8 and 9 millions (mostly the Burmese) are Buddhists. The Christians, the Sikhs (of the Punjab), the Jains, and the Parsis (who are fire-worshippers) are the other important religious communities. The various uncivilized tribes are mostly *animists* i. e., worshippers of spirits.

CHAPTER XIV.

ENGLAND & WALES.

Boundaries. England (with Wales) is bounded on the north by Scotland ; on the east by the North Sea ; on the south by the English Channel ; and on the West by the Atlantic Ocean, the Bristol Channel, St. George's Channel, and the Irish Sea..

Extent and population. The greatest length from the N. E. corner (Berwick-on-Tweed) to the S. W. corner (Land's End) is 425 miles. The greatest breadth from the east of Kent to the west of Cornwall is 230 miles. The area is 58,310 sq. miles, of which Wales has about 7,330 sq. miles. The population exceeds 32½ millions.

Natural features. The country being washed by the sea on its three longest sides, and there being several estuaries running far into the interior, the coast-line is very large for the area. There is one mile of coast to every twenty eight sq. miles of the area. The surface is flat in the east, hilly in the centre and south, and mountainous in the west and north. The principal plains are *the Plain of York*, *the Eastern Plain* (extending from the Wash to the Thames), and *the Salisbury Plain* (elevation, 400 ft.). Of the three largest plains, the Eastern Plain has the least elevation, and includes some of the principal agricultural counties. The Salisbury Plain is eminently suited for pasturage. The highest plains are the *plateaux* of Devonshire (1,000 to 2,000 ft.). The soil of Kent, Surrey, and Hereford, and other conditions prevailing in these counties, render them well-adapted for the rearing of fruits and hops ; Kent has indeed acquired the title of *the garden of England*. The central waterparting runs generally from N. to S. ; it consists of a chain of low mountains including among them *the Pennine Range* and *the Cotswold Hills*. The highest mountains occur in Cumberlandshire ; the lakes situated among the mountains of Cumberland and Westmoreland are famous for the beauty of their scenery.

Bays, estuaries, and other inlets.

On the east coast: Mouth of the Tyne, Mouth of the Tees, Mouth of the Humber, the Wash, Mouth of the Thames.

On the south coast: Portsmouth Harbour, Southampton Water, Spithead, Solent, Poole Bay, Weymouth Harbour, Plymouth Sound, Falmouth Harbour, Mounts Bay.

On the west coast: Bristol Channel, Swansea Bay, Caermarthen Bay, Milford Haven, Cardigan Bay, the Estuaries of the Dee, Mersey, and Ribble, Morecambe Bay, Solway Firth.

Capes. *On the east coast:* Flamborough Head, Spurn Head, the Naze, North Foreland. *On the south coast:* South Foreland, Beachy Head, the Needles, St. Alban's Head, Portland Bill, Start Point, Lizard Point. *On the west coast:* Land's End, St. David's Head, St. Bee's Head.

Islands. Holy Island and Farn Islands, near the coasts of Northumberland; Thanet and Sheppey, in the Mouth of the Thames; Isle of Wight, off the south coast; Channel Islands, off the north coast of France; Scilly Islands, off Land's End; Lundy Island, in the Bristol Channel; Anglesey, Holy Island, and Isle of Man, in the Irish Sea.

Notes on the Islands.

The **Farn Is.** are famous for the heroic exploit of Grace Darling in saving a ship-wrecked crew. **Thanet** and **Sheppey** are now practically joined to the mainland of Kent. The **Isle of Wight**, included in Hampshire, is famous for its beautiful scenery; it contains Osborne House (a favourite residence of Queen Victoria's), and the residence of the poet Tennyson. The **Channel Islands**, consisting of *Jersey*, *Guernsey*, *Alderney*, and *Sark* possess their own Government. *Jersey* is famous for its superior breed of kine. **Anglesey** is one of the counties of Wales; it is connected with the mainland by bridges and a railway line. The **Isle of Man** has its own laws and Governor.

Lakes. Windermere (the largest), Ulleswater and Derwentwater, in the north-west; Bala, in North Wales.

Straits. Strait of Dover, between England and France;

the Spithead and the Solent, between Hampshire and the Isle of Wight; Menai Strait, between Wales and Anglesey.

Mountains and Hills. The Cheviot Hills, between England and Scotland; the Pennine Range, extending from the Cheviot Hills, southwards, to Derbyshire; the Cumbrian Group, in Cumberland and the adjacent southern counties; Cotswold Hills, in Gloucestershire; the Devonian Range, in the S. W. of England; the Cambrian Mts., which fill the greater part of Wales, and include among them the Plinlimmon in the county of Montgomery; and Snowdon (3,570 ft.) in Caernarvonshire. Snowdon is the highest mountain in England and Wales, and Scaw Fell (3,200 ft.), one of the summits of the Cumbrian group, is the highest peak in England.

Rivers :—

Thames (215 miles; the largest river in England and Wales),
see p. 25.

Severn...rises from the Plinlimmon Mts., and flows into the Bristol Channel. (Principal towns on it :—Gloucester, Worcester, Shrewsbury.)

Trent...flows into the Estuary of the Humber. (Pr. towns :—Nottingham, Burton, Stoke.)

Great Ouse (or Bedford Ouse)...flows into the Wash. (Pr. towns :—Lynn Regis, Ely, Huntingdon, Bedford, Buckingham.)

Ouse (or Yorkshire Ouse)...flows into the Estuary of the Humber. (Pr. town :—York.)

Wye...flows into the Bristol Channel. (Pr. towns :—Monmouth, Hereford.)

Obs. The above are the six largest rivers.

Lower Avon flows into the Bristol Channel. (Pr. towns :—Bristol, Bath.)

Tyne ... flows into the North Sea. (Pr. towns :—Tynemouth, N. Shields, S. Shields, Newcastle.)

Wear ... flows into the North Sea. (Pr. towns :—Durham, Sunderland.)

Te	flows into the North Sea.	(Pr. town :—Stockton.)
Yare ...	" " " " " "	(Pr. towns :—Yarmouth, Norwich.)
Nen ...	" " " " Wash	(Pr. towns :—Peterborough, Northampton.)
Medway ...	" " " " Estuary of the Thames.	(Pr. towns :—Chatham, Rochester, Maidstone.)
Avon ...	" " " " English Channel.	(Pr. town :—Salisbury.)
Dee ...	" " " " Irish Sea.	(Pr. towns :—Flint, Chester.)
Mersey ..	" " " " " "	(Pr. towns :—Liverpool, Birkenhead.)

N. B. Leeds is situated on the Aire, a tributary of the Ouse.

Sheffield is	" " " " Don,	" " " "
Manchester is	" " " " Irwell,	" " " Mersey.
Cambridge	" " " " Cam,	" " " Great Ouse.
Derby	" " " " Derwent,	" " " Trent.
Hull	" " " " Estuary of the Humber.	

COUNTIES WITH CHIEF TOWNS.

England is divided into 40 counties (not including the City of London which, however, is sometimes regarded as a distinct county), of which 20 are maritime.

N. B. The county-towns are printed in italics.

<i>Names of Counties.</i>	•	<i>Chief towns.</i>
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On the German Ocean :—

Northumberland •	...	<i>Alnwick</i> , Newcastle, Tynemouth, Blyth, Elswick, N. Shields, Berwick.
Durham	... ..	<i>Durham</i> , Sunderland, Gateshead, S. Shields, Jarrow.
York	... ..	<i>York</i> , Leeds, Hull, Sheffield, Bradford, Halifax, Huddersfield, Wakefield, Scarborough, Whitby, Middlesborough, Goole, Doncaster, Bowling.
Lincoln ...	... ..	<i>Lincoln</i> , (Great) Grimsby.
Norfolk ...	... ..	<i>Norwich</i> , Yarmouth.
Suffolk ...	... ..	<i>Ipswich</i> , Lowestoft.

Essex	...	<i>Chelmsford,</i>	<i>Westham,</i>	<i>Harwich,</i>	<i>Colchester.</i>
Kent	...	<i>Maidstone,</i>	<i>Canterbury,</i>	<i>Chatham,</i>	<i>Dover, Woolwich, Greenwich, Margate, Ramsgate, Tunbridge Wells.</i>

On the English Channel :—

Sussex	...	...	<i>Lewes,</i>	<i>Hastings,</i>	<i>Brighton,</i>	<i>Eastbourne, Chichester.</i>
Hampshire	...	...	<i>Winchester,</i>	<i>Portsmouth,</i>	<i>Southampton,</i>	<i>Aldershot, Cowes (in the Isle of Wight).</i>
Dorset	...	...	<i>Dorchester,</i>	<i>Weymouth.</i>		
Devon	...	...	<i>Exeter,</i>	<i>Plymouth,</i>	<i>Devonport,</i>	<i>Torquay.</i>
Cornwall	...	...	<i>Bodmin,</i>	<i>Falmouth,</i>	<i>Penzance,</i>	<i>Truro.</i>

On the Bristol Channel :—

Somerset	...	...	<i>Taunton,</i>	<i>Bath.</i>		
Gloucester	...	...	<i>Gloucester,</i>	<i>Bristol,</i>	<i>Cheltenham,</i>	<i>Stroud, Tewkesbury.</i>
Monmouth	...	...	<i>Monmouth,</i>	<i>Newport.</i>		

On the Irish Sea :—

Cumberland	...	...	<i>Carlisle,</i>	<i>Whitehaven.</i>		
Westmoreland	...	...	<i>Appelby.</i>			
Lancashire	...	...	<i>Lancaster,</i>	<i>Liverpool,</i>	<i>Manchester,</i>	<i>Salford, Oldham, Blackburn, Bolton, Preston, Rochdale, Burnley, St. Helens, Barrow-in-Furness, Wigan.</i>
Cheshire	...	...	<i>Chester,</i>	<i>Birkenhead,</i>	<i>Macclesfield,</i>	<i>Stockport.</i>

Inland counties :—

Derby	...	...	<i>Derby.</i>			
Nottingham	...	...	<i>Nottingham.</i>			
Shropshire or Salop	...	...	<i>Shrewsbury.</i>			

Stafford	<i>Stafford</i> , Lichfield, Wolverhampton, Wednesbury, Walsall, Stoke-upon-Trent, Burslem, Hanley, Burton-on-Trent.
Leicester	<i>Leicester</i> .
Rutland	<i>Oakham</i> .
Hereford	<i>Hereford</i> .
Worcester	<i>Worcester</i> , Kidderminster, Dudley.
Warwick	<i>Warwick</i> , Birmingham, Rugby, Coventry, Leamington, Stratford-on-Avon.
Northampton	<i>Northampton</i> , Peterborough.
Huntingdon	<i>Huntingdon</i> .
Cambridge	<i>Cambridge</i> , Ely.
Oxford	<i>Oxford</i> .
Buckingham	<i>Aylesbury</i> , Buckingham, Eton.
Bedford	<i>Bedford</i> , Luton, Dunstable.
Hertford	<i>Hertford</i> , St. Albans.
Wiltshire	<i>Salisbury</i> , Trowbridge.
Berkshire	<i>Reading</i> .
Surrey	<i>Guildford</i> , Epsom, Croydon.
Middlesex	<i>Brentford</i> , London.

N. B. London is chiefly in Middlesex, but partly in Surrey and Kent. As stated before, it is sometimes regarded as a distinct county.

Wales is divided into 12 counties as follows :—

In North Wales :—

Flint	<i>Mold</i> .
Denbigh	<i>Denbigh</i> .
Caernarvon	<i>Caernarvon</i> , Bangor.
Anglesey	<i>Beaumaris</i> , Holyhead.
Merioneth	<i>Dolgelly</i> .
Montgomery	<i>Montgomery</i> , Newtown, Welshpool.

In South Wales :—

Cardigan	<i>Cardigan</i> , Aberystwith, Lampeter.
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THE ELEMENTS OF

Pembroke...	...	<i>Haverfordwest, Pembroke.</i>
Caermarthen	...	<i>Caermarthen.</i>
Glamorgan	...	<i>Cardiff, Swansea, Merthyr Tydvil, Aberdare.</i>
Radnor ...	...	<i>Presteign.</i>
Brecknock ...	...	<i>Brecon.</i>

In Wales there are only three inland counties *viz.*, Montgomery, Radnor, and Brecknock.

NOTES ON THE CHIEF TOWNS.

See also pp. 27-28.

The largest cities in England, arranged in order of population, are :-

London (Pop. 45 lacs).	Bolton.
Liverpool (7 lacs).	Sunderland.
Manchester (5½ lacs).	Oldham.
Birmingham (5 lacs).	Croydon.
Leeds (4 lacs).	Blackburn.
Sheffield (4 lacs).	Brighton.
Bristol (nearly 3 lacs).	Preston.
Bradford.	Norwich.
Westham.	Birkenhead.
Hull.	Gateshead.
Nottingham.	Plymouth.
Salford.	Derby.
Newcastle.	Southampton.
Leicester.	Halifax (over 1 lac).
Portsmouth (nearly 2 lacs).	

The two largest and most populous towns in Wales are **Cardiff** (164,420) and **Swansea** (94,500).

Manufacturing towns.

Cotton	Manchester, Preston, Oldham, Blackburn, Bolton, Rochdale, Burnley, Lancaster, etc. —(all in Lancashire); Stockport (in Cheshire); Nottingham and Leicester (cotton hose and cotton lace); etc.
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Woollen	Leeds, Bradford, Halifax, Huddersfield, Wakefield, etc.—(all in York); Trowbridge, Stroud (<i>broad-cloth</i>), Leicester (<i>woollen hosiery</i>), Rochdale, Newtown and Welshpool (<i>flannel</i>), Manchester, Caermarthen, Norwich, etc.
Silk ...	...	Derby, London (at Spital-fields), Macclesfield, Leeds, Manchester, Coventry (<i>ribbons</i>); Nottingham, Leicester, and Derby (<i>hosiery and lace</i>); etc.
Linens ...	...	Leeds, etc.
Carpets ...	...	Kidderminster, Leeds, Manchester, etc.
Leather ...	...	London, Bristol, Leeds, Denbigh, etc.
Boots and shoes	...	Northampton, Nottingham, Leicester, Stafford, Norwich, Denbigh, Bodmin, etc.
Straw-plaiting ...	...	Luton, Dunstable, etc.
Glass ...	...	Birmingham, Newcastle, London, St. Helens, Manchester, S. Shields, Gateshead, Dudley, etc.
Porcelain and pottery...	...	Stoke-upon-Trent, Burslem, Hanley, etc.—(all in Stafford); Leeds, Derby, Worcester, etc.
Paper ...	...	London, Manchester, Leeds, etc.
Chemicals ...	...	Manchester, London, Leeds, Newcastle, Gateshead, etc.
Clocks and watches ...	...	London, Coventry, Manchester, etc.

THE ELEMENTS OF

Ship-building Sunderland, London, Newcastle, Birkenhead, Portsmouth (government dockyard), Pembroke (government dockyard), Plymouth, Jarrow, Tyne-mouth, Elswick, N. Shields, S. Shields, Hull, Liverpool, Barrow-in-Furness, Bristol, Chatham, Sheerness, Devonport, Great Grimsby, etc.

Sugar-refining Bristol, etc.

Biscuits Reading, &c.

Metals, hardware, and machinery :—

In Warwick Birmingham (*all kinds of metals, hardware, and machinery*), Leamington (*chiefly cooking stoves*), Coventry (*chiefly bicycles*), etc.

In Yorkshire Sheffield (*chiefly iron, steel, and cutlery; also, plated goods*), Middlesborough (*iron and hardware*); Leeds, Doncaster, and Bowling (*machinery*); etc.

In Stafford Wolverhampton, Wednesbury, and Walsall (*iron and hardware*), etc.

In Worcester Dudley (*cutlery and hardware; chiefly, nails*), etc.

In Northumberland Newcastle (*iron, hardware, and machinery*), etc.

In Durham Sunderland (*iron, hardware, and machinery*), etc.

In Lancashire Manchester (*machinery*), etc.

In Gloucester Bristol (*iron, hardware, and machinery*), etc.

In Monmouth Monmouth (*tin-plates*), etc.

In Cornwall Truro (*copper, lead, tin*), etc.

In Middlesex London (*hardware and machinery*), etc.

In Kent... .. Woolwich (*govt. arms and ammu-*
nitions), etc.

In Glamorgan ... Merthyr Tydfil and Aberdare (*iron*),
Swansea (*copper, tin-plates*), etc.

In Caermarthen ... Caermarthen (*lead* and *tin*), etc.

N.B. London carries on a great variety of manufactures, *e.g.*, ship-building, machinery, paper, soap, glass, chemicals, clocks and watches, musical and scientific instruments, silks, leather, etc.

Chief ports :—London (trades most extensively with the whole world; has large passenger traffic); Liverpool (trades chiefly with America and India); Cardiff (exports *Welsh coal, iron, copper, slates, etc.*); Hull (chief port for Holland and the Baltic trade); Newcastle; S. Shields; Southampton (has large passenger traffic); Newport (exports *coal and iron*); Blyth; Swansea (exports are the same as those for Cardiff); Middlesbrough; Sunderland; Dover (port for France; has large passenger traffic); Great Grimsby; Manchester; Harwich (a packet station for Holland); Goole; Bristol (trades chiefly with Ireland and the West Indies); etc.

N. B. The principal coal-ports are :—Cardiff, Newcastle, S. Shields, Blyth, Newport, Hull, Swansea, Sunderland, and Great Grimsby.

Chief naval stations:—Portsmouth, Plymouth, Chatham, Woolwich, and Sheerness.

N. B. Woolwich and Chatham contain large naval (and military) depots.

Fishing Stations:—Great Grimsby, Yarmouth, and Lowestoft (herring, etc.), Colchester (oyster), Penzance (salmon), etc.

N. B. Hull is the centre of the whale and seal fishing trade in England.

Watering places :—Brighton, Hastings, Eastbourne, Yarmouth, Scarborough, Whitby, Lowestoft, Ramsgate, Margate, Weymouth, Torquay, Aberystwith, Cowes, etc.

Bath, Cheltenham, Leamington, and Tunbridge Wells are inland watering places.

Seats of Universities and Colleges:—Oxford, Cambridge, Durham, London, Manchester (founded, 1880 A.D.), and Birmingham (founded, 1900 A.D.), are the six English Universities. The University of Wales (founded, 1893 A.D.) consists of three colleges located at Cardiff, Bangor, and Aberystwith, respectively. There are Colleges at Nottingham, Sheffield, Bristol, and Lampeter, but these are not attached to any University.

Seats of large public-schools:—Eton, Rugby, Harrow (in Middlesex), etc.

Cathedral towns. Canterbury and York are the seats of the two Archbishops; the Archbishop of Canterbury is "the Primate of all England." There are many bishoprics, e. g., London, Oxford, Durham, Exeter, Salisbury, Lincoln, Peterborough, Carlisle, Ely, Gloucester, Chester, Manchester, Winchester, Chichester, Rochester, Lichfield, Norwich, etc.

FURTHER NOTES ON TOWNS.

Windsor—is a residence of the sovereigns of England; it is famous for its castles and parks.

Warwick—is noted for a castle of feudal times.

Chester—is an old town still surrounded by its ancient walls.

Stratford-on-Avon—is the birth-place of Shakespeare.

Lichfield—is the birth-place of Dr. Johnson.

Weymouth—is a well-fortified harbour and is the packet-station for the Channel Is.

Maidstone—is the centre of the Kentish hop-trade.

Aldershot—is a great military camp.

Aylesbury—has large trade in grain.

Chichester—has large trade in grain and live-stock.

Norwich—manufactures starch, mustard, wool, etc.

Burton-on-Trent—is famous for its breweries.

Chelsea, Kew, and Sydenham—are places near London; the first is noted for a large hospital for soldiers, the second for its famous gardens, and the last for its Crystal Palace.

Chelmsford—is noted for the manufacture of electric-light apparatus.

Falmouth—is situated on a fine harbour and is a port of call of some importance.

Derby, and **Epsom** (near London)—are famous for their horse-races.

Holyhead—is a packet-station for Dublin.

Places of historical interest. **Wedmore** (in Somerset), **Stamford Bridge** (in Yorkshire, on R. *Derwent*), **Senlac** (near *Hastings*, in Sussex), **Alnwick** (in Northumberland), **Runnymede** (Surrey), **Lewes** (Sussex), **Evesham** (Worcester), **Halidon Hill** (Northumberland), **Neville's Cross** (Durham), **Otterburn** or **Chevy Chase** and **Homildon Hill** (Northumberland), **Shrewsbury** (Shropshire), **St. Albans** (Hertford), **Northampton**, **Mortimer's Cross** (Hereford), **Towton** (Yorkshire), **Hedgeley Moor** (Northumberland), **Tewkesbury** (Gloucester), **Barnet** (Hertford), **Bosworth** (Leicester), **Flodden** (Northumberland), **Hampton** (Middlesex), **Edgehill** (on the border of Warwick and Oxford shires), **Marston Moor** (Yorkshire), **Naseby** (Northampton), **Worcester**, **Sedgemoor** (Somerset), **Preston** (Lancashire).

Minerals. See pp. 35 and 36.

Distribution of the principal minerals.

Coal	...	...	S. Wales (Glamorgan, Caermarthen, Pembroke), • Northumberland and Durham, S. Yorkshire and Nottingham, S. Lancashire (Wigan is the centre of the coal-fields), Derby, Cumberland (Whitehaven is the centre of the coal-fields), N. Stafford, S. Stafford (Dudley is the centre of the coal-fields), N. Wales (Flint and Denbigh), Monmouth, Leicester.
Iron	...	...	Northumberland (near Newcastle), Durham, S. Yorkshire, Stafford, S. Lancashire, Cumberland, Warwick, Glamorgan, N. Wales.
Tin	...	...	Cornwall, Devon.
Lead	...	...	Northumberland, Durham, Cornwall, N. Wales, • Isle of Man, Cumberland, Devon, Derby.

Copper ...	... Cornwall, Glamorgan, Caermarthen, Cumberland, Devon, Anglesey, Isle of Man.
Zinc ...	... Cumberland, Denbigh, Flint.
Slate ...	... N. Wales.
Salt ...	... Cheshire, Staffordshire, Worcestershire.
Building stones ...	Dorset, Cornwall, Cumberland.
Silver ...	... Found associated in small quantities with lead.

Agriculture. The principal agricultural productions are :—*Wheat, barley, oats, potatoes, turnips, beans, peas, hops, and fruits (apples, pears, plums, and cherries)*. The chief agricultural counties are situated in the east and the south-east, and include Yorkshire, Lincoln, Norfolk, Suffolk Nottingham, Cambridge, and Rutland. Hops and fruits are grown in Kent, Surrey, and Hereford, and fruits also in Middlesex. The western and west-midland counties (viz., Monmouth, Gloucester, Hereford, Shropshire, Worcester, Warwick, and Stafford) are eminently suited for grazing.

Manufactures. See pp. 37—40 and 164-6.

Commerce. See pp. 126—130.

Race and Religion. The people of England belong to the Anglo-Saxon race, with an admixture of Danish, Norman, and Celtic blood. The Welsh people are descended from the ancient Britons, and their language (Celtic) differs considerably from English. Christianity is the religion of the people of England and Wales. The Established Church is Protestant Episcopal, the King having the right to act as the supreme governor of the Church; but full toleration is accorded to the Protestant Dissenters and the Roman Catholics.

Government. See p. 17. The form of government of the United Kingdom is a **Constitutional or Limited Monarchy** i.e., the power of the Sovereign is limited by the wishes of the Lords and Commons, the latter being elected by the people. The Legislative power is vested in the Sovereign and the **Parliament** which consists of the House of Lords and the House of Commons. The **Archbishops** and **Bishops** have seats in the House of Lords.

Climate. The climate of England and Wales is moist but healthy. It is warmer than most other countries lying within the same parallels of latitude ; this is due to the insular position of the country, and to the influence of the warm oceanic current, *the Gulf Stream*, which flows by the west of the United Kingdom (*see* p. 121). In summer, the prevailing winds blow from the W. and the S. W., and bring with them warm vapour from the Atlantic. Hence, the western and southern shores are warmer than the eastern (*see* p. 121). The western parts get more rain also, than the eastern parts, Cumberland appropriating the heaviest rain-fall. (*See* also p. 41.)

CHAPTER XV.

.SCOTLAND.

Boundaries. Scotland is, bounded on the north by the Atlantic Ocean ; on the east by the North Sea ; on the south by England and the Irish Sea ; and on the west by the Atlantic Ocean.

Area and population. The area of Scotland is slightly larger than half that of England and Wales (*see* p. 158), but its population (nearly $4\frac{1}{2}$ mills.) is rather greater than one-eighth only of that of the latter.

Natural features. Scotland divides naturally into three parts :—(1) the **Northern Division** which is **very mountainous**, containing deer forests and moors, and characterised by grand scenery, especially in its west ; (2) the **Central Lowland Plain** which is suited for agriculture and pasturage, the low hills in this region affording excellent ground for sheep-farming ; and (3) the **Southern Division** which is **hilly**. The eastern coasts are low in several parts and are indented by many large inlets called *firths*. The northern and western coasts are bold and steep, and are deeply indented. Many of the lakes (or lochs as they are called in that country) are famous for their romantic scenery. One of the lochs *viz.*, Loch Ness, with R. Ness and the **Caledonian Canal**, entirely cuts off the north-western part of the country from the rest of it.

Inlets. *On the east* :—Firth of Forth, Firth of Tay, Cromarty Firth, Moray Firth, and Dornoch Firth. *On the north* :—Pentland Firth. *On the west* :—Loch Broom, Loch Linnhe, Firth of Lorn, Loch Fyne, any Firth of Clyde. *On the south* :—Luce Bay, Wigtown Bay, and Solway Firth.

Islands. Orkney and Shetland Islands, in the north ; the Hebrides or the Western Islands, Skye, Mull, Jura, Islay, Arran, and Bute, in the west.

Capes. Duncansby Head and Dunnet Head, in the extreme north ; Cape Wrath, in the N. W. ; Mull of Cantire, S. of the county of Argyll ; Mull of Galloway and Burrow Head, S. of the

county of Wigtown ; St. Abb's Head and Fife Ness, on the east coast.

Mountains. The Cheviot Hills, between Scotland and England. The Lammermuir Hills, north of the county of Berwick. The Lowther, north of the counties of Dumfries and Kircudbright. The Grampians, in the counties of Stirling, Perth, Inverness, and Aberdeen ; Ben Nevis (4,406 ft.), a peak (in Inverness) of these mountains is the highest summit in the British Isles ; other summits of the Grampians are :—Ben Lomond (in Stirling), Ben Lawyers (in Perthshire), and Ben Macdhuì (in Aberdeen). The Northern Highlands, chiefly in the counties of Sutherland, and Ross and Cromarty.

Lochs. Loch Lomond, between the counties of Stirling and Dumbarton ; Loch Tay and Loch Katrine, in Perthshire ; Loch Leven, in Kinross ; Loch Ness, in Inverness.

Channels. The Minch, between the Hebrides and the mainland ; the Little Minch, between the Hebrides and Skye ; Sound of Sleat, between Skye and Inverness ; Sound of Mull, between Mull and Argyll ; Sound of Jura, between Jura and Argyll.

Rivers. Flowing into the North Sea :—the Tay, Forth, and Tweed ; flowing westwards into the Atlantic Ocean :—the Clyde.

Principal towns on the Tay are :—Perth and Dundee, the latter being on the Firth of Tay. Stirling, Edinburgh, and Leith are on the Firth of Forth. Berwick and Peebles are on the Tweed. Lanark and Glasgow are on the Clyde, and Greenock is on the Firth of Clyde.

COUNTIES WITH CHIEF TOWNS.

N. B. The county-towns are given in italics ; the county-town is not given where it is called after the county.

Scotland is divided into 32 counties, *vis.*,

Berwick	...	...	<i>Greenlaw.</i>
Haddington	...	...
Edinburgh	or	Mid-	
lothian	...	...	<i>Edinburgh, Leith, Portobello.</i>

Linlithgow	...	...
Stirling	...	... Grangemouth.
Fife	...	... Cupar, Kirkcaldy, Dunfermline, St. Andrews.
Perth	...	...
Forfar	...	... Dundee.
Kincardine	...	... Stonehaven.
Aberdeen	...	...
Banff		
Elgin	...	...
Nairn	...	...
Ross and Cromarty	...	... Dingwall.
Sutherland	...	... Dornock.
Caithness	...	... Wick.
Inverness	...	...
Argyle	...	... Inverary.
Bute	...	... Rothesay.
Dumbarton	...	...
Renfrew	...	... Paisley, Greenock, Port Glasgow.
Ayr	...	... Kilmarnock.
Wigtown	...	...
Kircudbright	...	...
Dumfries	...	...
Roxburgh	...	... Jedburgh.
Selkirk	...	... Galashiels.
Peebles	...	...
Lanark	...	... Glasgow.
Clackmannan	...	...
Kinross	...	...
Orkney and Shetland		
Isles	...	... Lerwick.

NOTES ON THE TOWNS.

- See also p. 28. **Glasgow** is the largest and most populous city and the commercial capital of Scotland. It is the second largest city and probably the sixth port* in the United Kingdom. Its principal industries are:—ship-building; cotton, woollen, and silk manufactures; manufactures of machinery, chemicals, scientific apparatus, etc. **Port Glasgow** was formerly the port of Glasgow, but now carries on an independent trade; ship-building and iron manufactures are its chief industries. Next to Glasgow, the most important ports of Scotland are:—**Kirkcaldy**, **Leith**, and **Grangemouth**. **Dundee** is famous for manufactures of jute and linen. It is the centre of the whale and seal fishing trade in Great Britain. It is a seaport of some importance and is noted also for its ship-building industry and manufactures of machinery. **Dunfermline** is famous for manufactures of fine linen. Fish-curing is an important industry of **Aberdeen**, the northern seaport of Scotland. **Greenock** is famous for ship-building and also for its commerce. **Paisley** manufactures woollens, silks, thread, and shawls. **Stirling**, **Galashiels**, and **Kilmarnock** are noted for woollen manufactures. **St. Andrews** is the seat of the oldest University in Scotland. **Portobello** is a favourite watering place.

Balmoral (in Aberdeenshire) contains a famous castle, a favourite residence of the late Queen-Empress. **Perth** was once the capital of Scotland. **John o' Groat's House** is the northern-most inhabited place in Scotland. The following places are of historical interest:—**Dunbar** (in Haddington), **Stirling Bridge** and **Falkirk** (Stirling), **Methven** (Perthshire), **Loudon Hill** (Ayr), **Bannockburn** (Stirling), **Solway Moss** (Dumfries), **Pinkie** (Haddington), **Carberry Hill** (Midlothian), **Philiphaugh** (Selkirk), **Bothwell** (Lanark), **Kil-**

* The largest ports in the United Kingdom, for foreign commerce, are:—London, Liverpool, Cardiff, the Tyne Ports (Newcastle, N. Shields, S. Shields), Hull, Glasgow, Southampton, Newport, Blyth, Swansea, Kirkcaldy, Leith, Middlesbrough, Sunderland, Dover, Great Grimsby, Grangemouth, etc.

THE ELEMENTS OF

Perth (Perth), **Glencoe** (Argyle), **Sheriffmuir** (Perth), **Prestonpans** (Haddington), and **Culloden** (Inverness).

Agriculture. *Oats* and *barley* are the chief agricultural productions. Sheep-farming is of great importance.

Minerals. *Coal, iron, lead, granite, and slate* are the principal minerals which occur in the country. Granite quarries exist in the counties of Aberdeen and Kircudbright. Slate occurs in Argyle. The other minerals are found in the Central Division, the county of Lanark being particularly rich in them. Iron is found chiefly in the neighbourhood of Glasgow, and lead in the Lowther Hills.

Manufactures. See notes on towns (p. 175).

Commerce. The chief exports are :—Cotton, woollen, linen, and silk goods ; also, coal and machinery. The chief imports are :—Cotton, jute, and other materials for manufactures, and articles of food.

Climate. The climate is generally similar to that of northern England, but owing to its higher level Scotland is somewhat colder than England.

Race and religion. In the Highlands the people belong chiefly to the *Celtic* race, and speak the *Gaelic* dialect. In the other parts, the people are mostly of *Anglian* and *Scandinavian* origin. The Scotch are Christians ; the Established Church of Scotland is organised on the **presbyterian system** of government, in which the clergy are all equal. The supreme court of the Established Church is the **General Assembly**. The **United Free Church of Scotland** claims the largest body of dissenters.

Government. See p. 170. The Scottish and the English Parliaments were united in 1707 A. D.

CHAPTER XVI.

IRELAND.

Boundaries. Ireland is bounded on the north, west, and south by the Atlantic Ocean; and on the east by the Irish Sea and St. George's Channel.

Area and population. Ireland is rather larger than Scotland (area, 32,583 sq. miles), while its population (nearly $4\frac{1}{2}$ mills.) is about the same as that of Scotland.

Natural features. The eastern coasts are generally low and flat; the other coasts are high, rocky, and deeply indented. On the N. E. is the Giant's Causeway, a natural pier composed of many thousand flat-sided columns, closely united. The interior of the Island is mostly level (elevation, 250 to 300 ft.), the mountains being chiefly confined to the neighbourhood of the coasts. A large part of the surface of Ireland consists of peat and other bogs, formed owing to the absence of good natural drainage; among these the Bog of Allen (in King's County and Kildare) may be mentioned. The peat-bogs are used as sources of fuel. The country receives abundant rain; the climate is moist and mild, and the soil is generally very fertile. Hence the Island remains always green, and this has procured for it the name of the Emerald Isle. The lakes of Killarney are famous for their scenery, and are visited by tourists.

Inlets. Belfast Lough, Dundalk Bay, Dublin Bay, and Wexford Bay, on the east; Waterford and Cork Harbours, on the south; Bantry Bay and Dingle Bay, on the south-west; Mouth of the Shannon, Galway Bay, and Donegal Bay, on the west; Lough Foyle, on the north.

Channels. The North Channel, between Ireland and Scotland; St. George's Channel, between Ireland and Wales.

Loughs. Lough Nea (the largest lake in the British Isles), west of the county of Antrim; Lough Erne, in the county of Fermanagh; Lough Ree, east of the county of Roscommon;

Lough Corrib, in the county of Galway ; Lakes of Killarney, in the county of Kerry.

Capes. Malin Head and Benmore Head, on the north ; Wicklow Head, on the east ; Cape Clear (in the island of C. Clear), on the south-west ; Dunmore Head and Loop Head, on the west.

Rivers. Flowing into the Atlantic :— the Shannon and the Foyle ; flowing into the Irish Sea :—the Liffey.

Limerick is the principal town on the Shannon, *Londonderry* on the Foyle, and *Dublin* on the Liffey.

Mountains. Kerry Mts., in the county of Kerry ; the highest among these are known as the MacGillycuddy Reeks. Silvermine Mts., in the county of Tipperary. Slieve Bloom Mts., in Tipperary and Queen's County. Wicklow Mts., in the county of Wicklow. There are hills in most of the northern and western counties.

PROVINCES AND COUNTIES WITH TOWNS.

N. B. The county-towns are given in italics ; the county-town is not given where it is called after the county.

Ireland is divided into four Provinces—Leinster, Munster, Ulster, and Connaught ; these Provinces are sub-divided into 32 counties.

In Leinster :—

Carlow.	...	...	...
Dublin	...	...	...
Kildare	...	...	. <i>Athy.</i>
Kilkenny	...	.	.
King's County	.	.	. <i>Tullamore.</i>
Longford	...	.	.
Louth	...	.	. <i>Dundalk, Drogheda.</i>
Meath	...	.	. <i>Trim.</i>
Queen's County	.	.	. <i>Maryborough.</i>
West Meath	...	.	. <i>Mullingar.</i>
Wexford	...	.	.
Wicklow	...	.	.

In Munster :—

Clare	...	...	...	<i>Ennis.</i>
Cork	...	...	...
Kerry	...	...	...	<i>Tralee.</i>
Limerick	...	...	...
Tipperary	...	...	...	<i>Clonmel.</i>
Waterford	...	...	...

In Ulster :—

Antrim	...	...	...	<i>Belfast.</i>
Armagh	...	...	...
Cavan	...	...	...
Donegal	...	...	...	<i>Lifford.</i>
Down	...	...	...	<i>Downpatrick.</i>
Fermanagh	...	...	...	<i>Enniskillen.</i>
Londonderry	...	...	...
Monaghan	...	...	...
Tyrone	...	...	...	<i>Omagh.</i>

In Connaught :—

Galway	...	...	...
Leitrim	...	...	...	<i>Carrick-on-Shannon</i>
Mayo	...	...	...	<i>Castlebar.</i>
Roscommon	...	...	...
Sligo	...	...	...

NOTES ON THE CHIEF TOWNS.

See also p. 28. *

Belfast is the most populous city and the largest port in Ireland. It is the centre of the Irish linen manufacture. It is noted also for manufacture of ropes and whisky, and for its ship-building industry. **Armagh**, **Downpatrick**, and **Enniskillen** are also engaged in linen manufacture. The principal manufactures of **Dublin** are whisky and porter. **Cork** is an excellent harbour; it has large exports of grain, butter, etc. **Dublin**, **Limerick**, **Londonderry**, **Drogheda**, **Dundalk**, and **Waterford** are all considerable ports. **Wexford** has herring, oyster, and salmon fisheries.

The following places are well known in Irish history :—**Drogheda, Enniskillen, Londonderry**, and the **Boyne** (on which stands Drogheda).

Agriculture. *Oats* and *potatoes* are the principal agricultural products of the Island. *Turnips*, *barley*, and *wheat* are cultivated to a small extent. *Flax* is grown in the north.

Minerals. Ireland is poor in minerals; *coal* is found in parts of Leinster, but it is inferior in quality to British coal.

Manufactures. See p. 179.

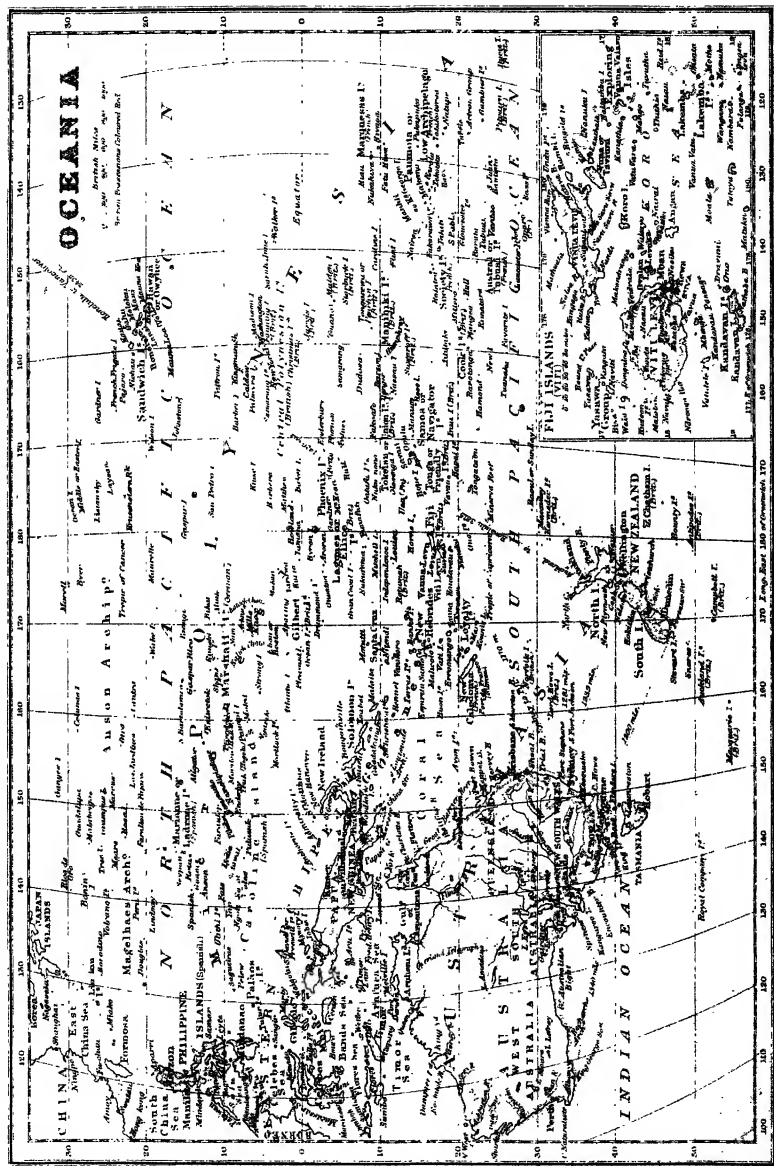
Commerce. The chief exports are :—*Oats*, *potatoes*, *flax*, *cattle*, *pigs*, *butter*, *bacon*, *eggs*, and *whisky*. The chief imports are manufactured goods and articles of food. Ireland trades chiefly with Great Britain.

Climate. The climate of Ireland is similar to that of England, but is rather warmer.

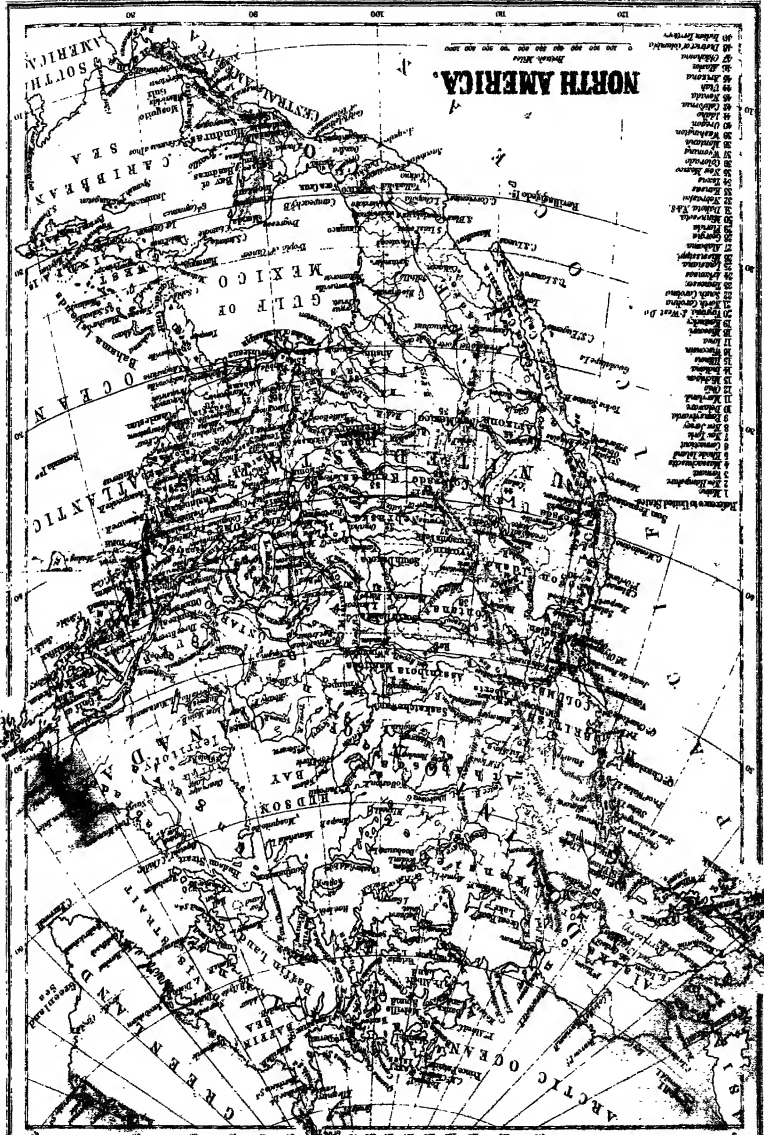
Race. The native Irish belong to the *Celtic* branch of the *Aryan* race, but there are many descendants of the English and Scotch settled in the Island. The Irish language is allied to the *Gælic*.

Religion. The majority of the people (more than $3\frac{1}{4}$ mils.) are Roman Catholics. The Presbyterians number nearly $4\frac{1}{2}$ lacs.

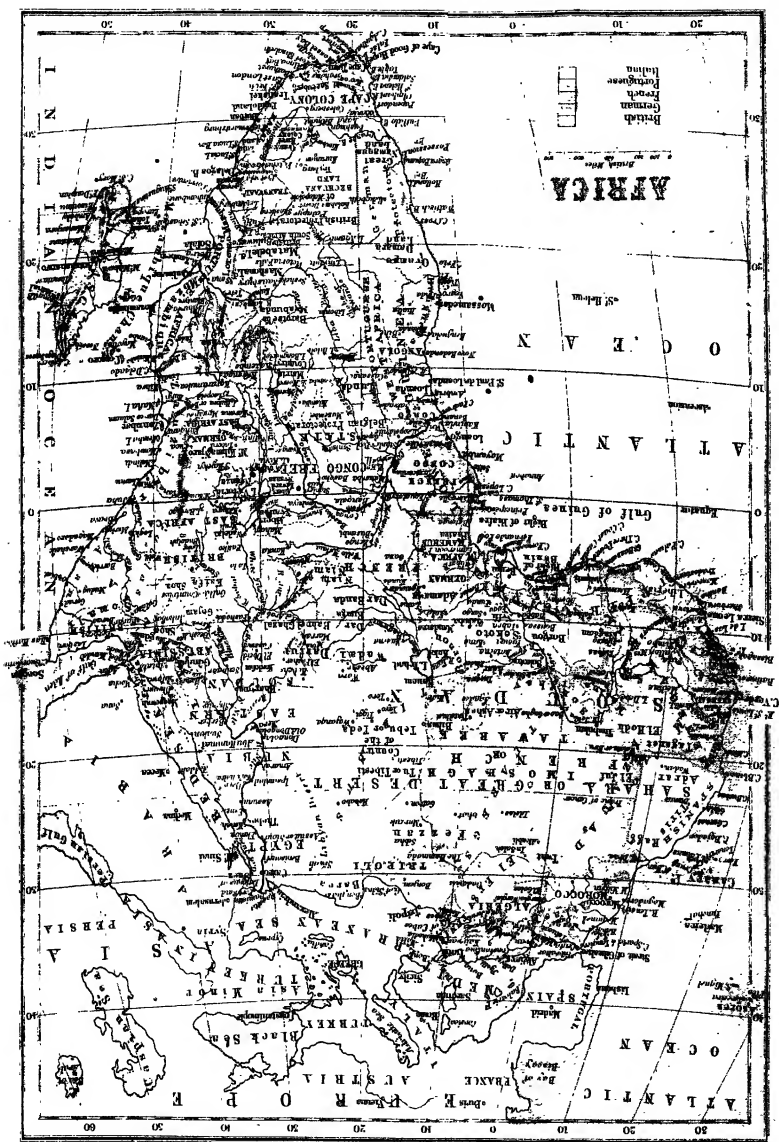
Government. See P. 170. The Irish Parliament was united to that of Great Britain in 1801 A. D.

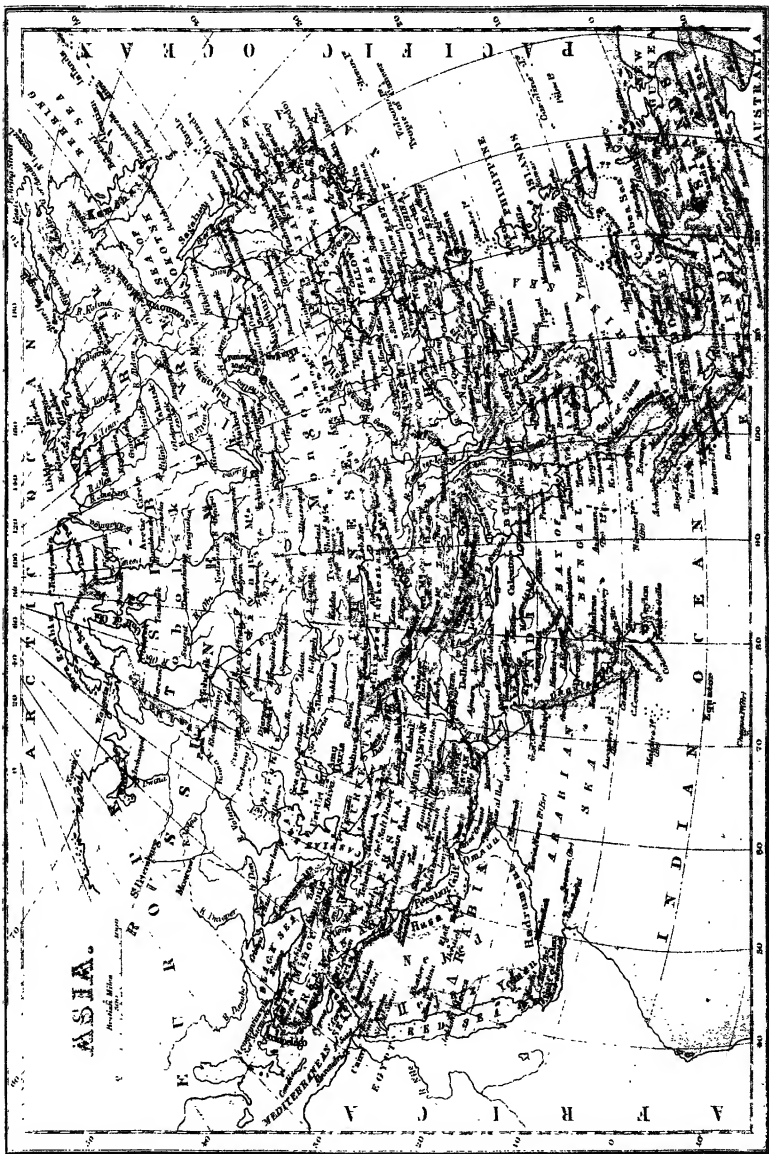


NORTH AMERICA



- 1. Alaska
- 2. British Columbia
- 3. Washington
- 4. Oregon
- 5. California
- 6. Nevada
- 7. Idaho
- 8. Montana
- 9. Wyoming
- 10. Colorado
- 11. Arizona
- 12. New Mexico
- 13. Texas
- 14. Louisiana
- 15. Mississippi
- 16. Alabama
- 17. Georgia
- 18. Florida
- 19. South Carolina
- 20. North Carolina
- 21. Virginia
- 22. Maryland
- 23. Delaware
- 24. Pennsylvania
- 25. New Jersey
- 26. New York
- 27. Connecticut
- 28. Rhode Island
- 29. Massachusetts
- 30. Vermont
- 31. New Hampshire
- 32. Maine
- 33. Nova Scotia
- 34. New Brunswick
- 35. Prince Edward Island
- 36. Quebec
- 37. Ontario
- 38. Manitoba
- 39. Saskatchewan
- 40. Alberta
- 41. British Columbia
- 42. Yukon
- 43. Northwest Territories
- 44. Nunavut
- 45. Greenland
- 46. Iceland
- 47. Faroe Islands
- 48. Azores
- 49. Madeira
- 50. Canary Islands



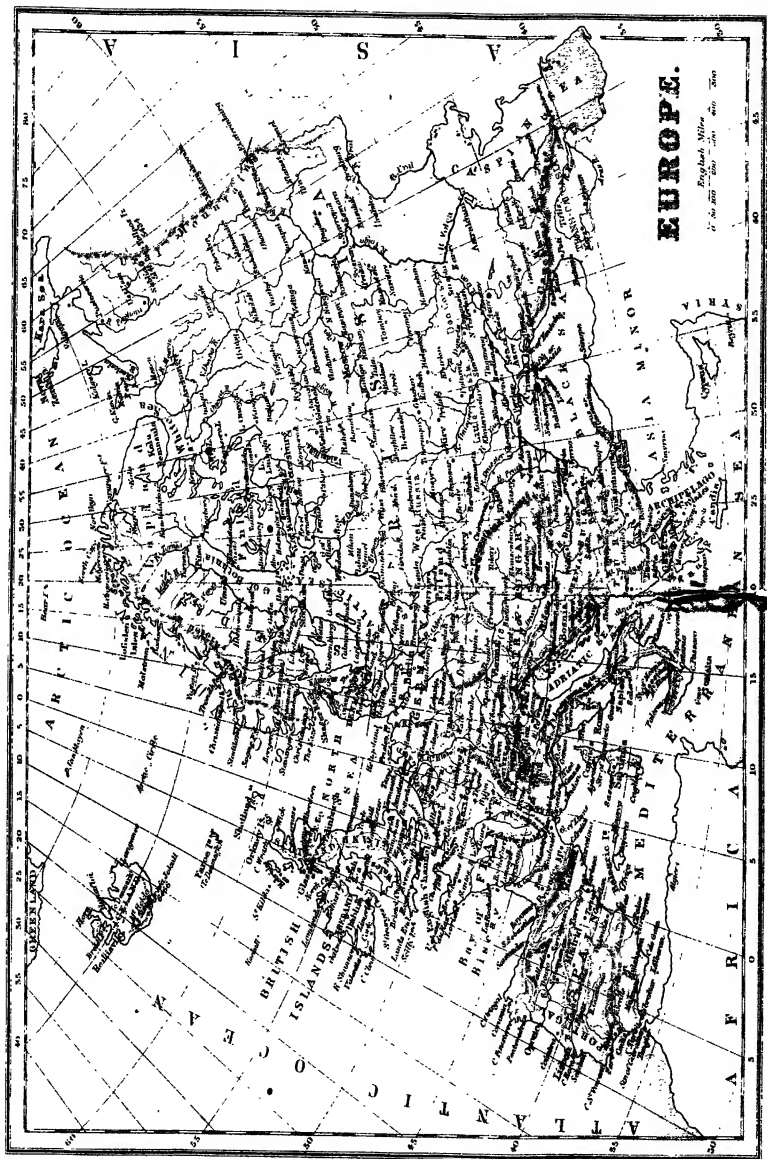


BRITISH ISLANDS

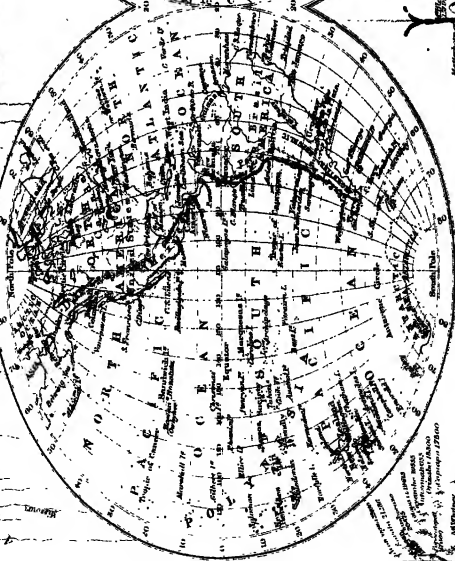




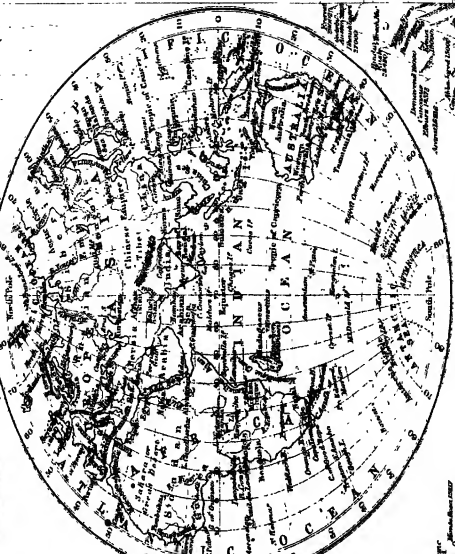
English Miles



EASTERN HEMISPHERE



COMPARATIVE VIEW OF THE PRINCIPAL MOUNTAINS



PRINCIPAL MOUNTAINS

COMPARATIVE VIEW OF THE PRINCIPAL RIVERS

Species	Number	Weight (g)	Length (mm)	Wing (mm)	Tail (mm)	Bill (mm)	Foot (mm)	Claw (mm)	Sex	Age	Notes
Red-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
White-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-naped Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Green-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Blue-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Yellow-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Orange-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Pink-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Grey-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Brown-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
White-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-naped Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Green-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Blue-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Yellow-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Orange-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Pink-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Grey-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Brown-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
White-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-naped Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Green-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Blue-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Yellow-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Orange-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Pink-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Grey-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Brown-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
White-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Black-naped Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Green-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Blue-tailed Tropicbird	1	100	110	110	110	110	110	110	♂	Ad	
Yellow-tailed Tropicbird	1	100	110	110	110	110	110	110	♀	Ad	
Orange-tailed Tropicbird	1	100	110	110	110	110					

Dresden	900
Berlin	1,500
Frankfurt	1,800
Zürich	1,600
Köln	1,400
Hamburg	1,700
Oldenburg	1,600
Augsburg	1,500
Munich	1,600
Frankfurt	1,800
Leipzig	1,900

[illegible]

THE SUNDAY

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1

Dr. J. H. H. H.

॥ ॐ नमो भगवते ॥

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100%

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1. *Chlorophyll a* and *Chlorophyll b* were determined using a spectrophotometer (Shimadzu UV-1601) at 663 nm and 646 nm, respectively. The concentrations were calculated using the following equations:

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023 2000

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1009 m. 1009 m.

1

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Fuller 350

1
[unclear]

1087

0071 2000

14520 WALT

底

(000% 2000)

0059 2120

0572

Lat. 17.05.5

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